

BEYOND BUDGETING SINCE INCEPTION: WHAT IS THE STATUS?

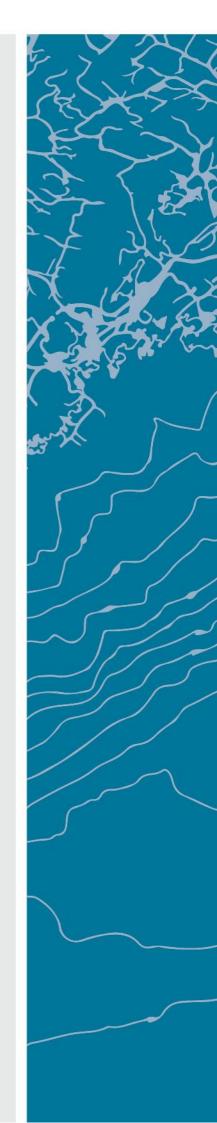
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DEDICATION

This work is dedicated to my mother whose love and appetite for me is inestimable. I will ever care to remember her.

ACKNOWLEDGEMENT

First and foremost, I will like to acknowledge the Almighty God, who gave me the strength to start and finish my study in this school. His mercies and power has given me the ability to come, and conquer in all my endeavours. I must recognise my supervisor, Assistant Professor Stine Rye Bårdsen for her constructive criticism throughout my master's thesis. Her correction and encouragement has paid off overall. I must extend my appreciation to friends for their quality suggestion and encouragement during my study cannot be ignored. Profuse gratefulness goes to my family members for their concern and their contribution cannot be exceeded in my study. Finally, I appreciate the people in the library at the University of Agder, especially Henry Langseth whose contribution was very productive during my search for research papers.

Ayana Damena Janfa, December 2017.

ABTSRACT

The Beyond Budgeting idea as developed by Hope and Fraser (1997) has been in existence for almost twenty years, yet, the research community still has divergent views on whether the concept is a better management accounting tool for organizations' management control system or not. Also, whether it has received attention in research community like other management accounting tools such as Traditional Budgeting and Balanced Scorecard. On this notion, this study is developed to investigate the status of the research discourse on the concept to gain relevant knowledge. Inspired by Scapens and Bromwich (2001) and built on Actor Network Theory and Diffusion of Innovation Theory, 34 published peered reviewed articles on Beyond Budgeting for a period between 1999 and 2017 was reviewed. The review offers an imprint of how the concept has diffused and been adopted in the research community. Results show that researchers have examined the concept theoretically and empirically, but theoretically discussed papers were dominant. In addition, there seems to be an overweight of positive attitude towards Beyond Budgeting in the research community. Despite this, there is little research, which could be identified to have proffered the best solution to all issues yet. Subsequently, this study identifies some limitations of the review approach applied, gaps in the research status of the Beyond Budgeting and suggests some directions for future research relating to the concept.

Keywords: Beyond Budgeting; Diffusion; Research community; Management control system.

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CHAPTER ONE INTRODUCTION

1.1 Introductory background

Management accounting theory and practice has been witnessing a revolution for the last few decades. For instance, Johnson and Kaplan (1987) identified the inadequacies and irrelevance of cost and performance measurement systems. Because of this, several new management accounting (MA) techniques have evolved. These new techniques are often termed strategic MA and one such "tool" that has received attention in Norway in later years is the so-called Beyond Budgeting (BB). Consequent to this MA innovation, Wallander (1999) emphasized that in the new organizations, "budgeting is an unnecessary evil" and therefore the functioning of the management control systems (MCSs) requires a new approach. He stated that traditional budgeting is an outdated way of controlling and guiding a company and that 'it is a cumbersome way of reaching conclusions which are either commonplace or wrong' (Wallander, 1999, p.419). On the same course, Hope and Fraser (1997) noted that the traditional use of budget for MCSs is ineffective. It cannot provide adequate information needed by individual decision makers in the evolving difficult organization dynamics (Hope & Fraser, 1997). They posit that budgets are disregarded for being too limited to internal activities. Also, they note that it is a barrier to creativity and innovation capable of providing the capabilities required of organizations to compete in the new information age.

Following the argument in the foregoing, Bogsnes (2009) criticized that budgets are inappropriate for the turbulent business environment facing companies today. Bogsnes (2009) did not only concentrate on the insufficiency of the annual planning prospect of the budget in a competitive and tempestuous environment. He also stressed on the need to devolve responsibilities to enable organizations to act on the problems of appraising performance in conformity with fixed targets. Hope and Fraser (2003a) argued that traditional budgeting came into limelight at a time when the business environment was steady and less competitive than the present time. Therefore, budgeting is out of order with the competitive environment and more adaptive ways of managing organizations are now required. Hence, budget-based systems were criticized for rewarding people for lying (Jensen, 2003). It rewards gaming while concealing the facts they are meant to ask. These are facts that are required to help managers make the essential trade-offs in apportioning resources between projects as well as departments and initiatives (Jensen, 2003). On this view, Frezatti (2004) claimed that this gaming is figure manipulation and has reached an unacceptable level. Accordingly, the

budget has been taken over by financial engineers, who have used it as dubious power for managing by figures (Frezatti, 2004). Bogsnes (2009) argued that a budget with attached bonuses could stimulate gaming and consequently affect the quality of the budget. Based on this criticism, Hope, Bunce and Röösli (2011) suggested that BB is a new management practice that will bring efficiency to decision makers in organizations. From this point of view, Bogsnes (2009, pp. 48-52) indicated that the cost of preparing budgets ("the efficiency problem") is an argument for going BB.

The concept of BB is a framework, which consists of the principles of adaptive processes and the principles of radical decentralization. In line with company's ethics, they form an articulate management model backed by a set of instruments including shareholder value models, benchmarking models, balanced scorecards (BSC), activity-based management practices, customer relationship management models, information systems and rolling forecasts (Norkowski,2012). Hence, Hope (2003) considered that BB in comparison with the traditional budgeting practices has two major differences. First, it is a more flexible way of managing. Instead of fixed annual plans and budgets that restrict managers to fixed actions, targets are reviewed frequently and based on stretch goals. These goals are linked to performance against world-class standards, peers, competitors and prior periods. Second, BB allows a more delegated authority way of managing. Instead of the traditional hierarchy and centralized leadership, it allows decision-making and performance accountability to be delegated to line managers. This delegation facilitates a self-managed working environment and a culture of personal authority. Therefore, to implement BB, Hope, Bunce and Röösli, (2011) advocated that organisations should adopt a management control tool that replace their annual budgeting and focus on 12 principles of BB comprising six leadership and six process principles (Hope & Frazer, 2001. See the principles in appendix A).

Studies like Hope et al. (2011) and Bogsnes (2009) all argued that BB is a better management accounting tool than budgeting. From this view, it seems BB is a kind of MA tool that has the capacity to improve on MCSs of modern organizations in today's volatile business environment. Contrary to this opinion, studies have also shown that most of organizations still uses budgeting (e.g., Neely, Bourne & Adams, 2003); Uyar, 2009; Libby & Lindsay,2010). Furthermore, since BB concept has been in existence for almost twenty years (i.e. Hope & Frazer, 1997 BBRT), it is interesting to investigate its status in the research community to gain relevant knowledge. To achieve this aim, a study by Scapens and Bromwich (2001) is used as an inspiration to conduct an up to date literature review on BB.

Additionally, this literature study uses actor network theory (ANT) and the knowledge application of diffusion of innovation (DOI) theory as a framework for the analysis of the review results. Therefore, the motivation of the study is to show how studies have been conducted on BB from 1999 to 2017 and how the concept is diffusing in the research community. This period is based on Wallander's (1999) study, "Budgeting – an unnecessary evil", which practically popularize the BB advocates to promote the concept (i.e., Hope & Fraser, 2003).

1.2 Research problem

What is the status of the Beyond Budgeting in the research community?

To answer the research problem, the study focuses on peer reviewed research literature to investigate and analyse the following dimensions:

- The number of published articles on the subject.
- The types of journals publishing articles on BB.
- The geographical area where the concept of BB has been discussed in term of (country of study) and publication place (publication place).
- The types of research design used for analysis in the reviewed articles.
- The settings from which BB has been researched, e.g. company setting
- The findings/conclusions reached by researchers on the BB concept.

By structuring the "main findings" of the articles reviewed, the study further aims to answer the following research questions (RQs).

- RQI In what ways has the research communities responded to the BB concept?
- RQ2 Are there findings indicating that BB improve on management control system?
- RQ3 Are there findings indicating how research communities viewed the diffusion and adoption of the BB idea?

1.3 Purpose and significance of the study

The predominant purpose of the study is to explore the status of the research discourse on Beyond Budgeting. The findings of this research will contribute to the research community, considering that there is need to determine the most suitable and efficient management practice for organizations. The existing opposing debate in the research community on whether Beyond Budgeting can suitably replace Traditional Budgeting or not justifies the need to identify the position of the Beyond Budgeting concept. Therefore, applying the recommended approach resulting from the result of this study will be able to clarify the

debate better in the research community. Research community would be guided on what should be emphasized to determine best practices. Regarding business schools, this study will help to discover lapses in management accounting curriculum that have not been explored. Hence, a new conception on Beyond Budgeting may be concluded.

1.4 The structure of the thesis

Inspired by Scapens and Bromwich (2001) and built on ANT and DOI theory, the rest of this paper is structured as follows: Chapter two is theoretical perspective. First, it established the understanding of the BB idea as a MA innovation with the application of ANT and DOI theory. Second, it connects the conception of the analytical dimension to the study objective and analysis. Chapter three presents the methodological approach. It contains the research design, search strategy, electronic databases, keyword, hits and search process and inclusion and exclusion criteria, Chapter four fully described the review and analytical dimensions. It highlights the dimensions overview and analytical procedures of the study. Chapter five presents the review results and analysis. It presents the review results using frequency distribution statistics such as simple frequency table and percentages and supported the analysis of the result with theory. Chapter six offers the knowledge gaps and the limitations of the review approach of the study. Subsequently, this chapter based on the knowledge gaps and limitations of the study presents suggestions for possible directions for further research studies. Then, this chapter in summary draw the conclusion of the study.

CHAPTER TWO THEORETICAL PERSPECTIVE

2.1 Theories and theoretical frameworks on Beyond Budgeting

According to Copeland and Shank (1971), accounting methods can be considered as innovations, and accounting change is subject to the diffusion of innovation (DOI) theory. An innovation can be described as the positive introduction into a given social system of ideas that are new (Bradford & Kent, 1977). DOI is "the process by which an innovation is communicated through certain channels over time among the members of a social system" (Rogers, 2003, p. 5). In this regard, the introduction of the BB concept championed by Hope and Fraser (1997) can also be regarded as a kind of MA innovations. To properly comprehend the status of BB in the research community, this study combines Actor Network Theory (ANT) and the DOIs theory for the understanding of the concept as a MA innovation. The theories will be used to support the analysis of the review results. These theories are relevant for this literature study because they can be used to explain the diffusion of the BB concept in the research community. As noted by Chua (1995), ANT is useful for the study of management accounting innovation and diffusion. This is because ANT helps to compare in many ways the construction of managerial innovations with scientific debates by putting into consideration power struggle, trials and the use of rhetoric. (Latour, 1996). It can be used to examine how networks are built to produce accounting realities (Latour, 2005), such as financial statements or the accounting information that will be derived from new systems. Therefore, the two theories would jointly be used to develop an understanding of the BB concept in relation to the identified analytical dimension in section 1.2 to determine how it has diffused. Also, the theories would be used to interpret the review results in the analysis.

The theory of DOI was developed by E.M. Rogers in 1962. Subject to Rogers' view, diffusion is the 'spreading' of something throughout a population (Lapsley & Wright, 2004). Rogers (1983, 1995) posits that for diffusion to take place, first, a new idea or an innovation must exist. In this study, BB is considered the innovation to be diffused. Second, there must exist a population of potential adopters for the innovation. For example, in the company setting under analytical dimension exemplified in section 1.2, the companies used as case studies or for field research are potential adopters of the BB idea. Finally, there must be communication links between the innovators (e.g., Hope and Fraser and the Beyond Budgeting Round Table) and potential adopters like the studied companies. However, diffusion is said to occur when an innovative technique has been adopted. It means that the

key to adoption is that the person or organization must observe the idea, behaviour or product (e.g., the BB concept) as new or innovative for diffusion to be possible. Diffusion is not an automatic consequence of innovation but progresses easily when factors existing within its environment is favourable. Therefore, adoption depends on the degree of benefit the innovation will bring to the adopters. For example, the reliability of the innovation with the adopters' existing values; the complication of the innovation; the potential of the idea for being implemented on a trial basis, and the ease of observing the resulting benefits (Rogers, 1995). Adoption means that a person or an organization does something differently than before (for instance, adopting the BB idea as a management tool in place of traditional budgeting). Rogers (1971) maintains that innovations are not adopted by everyone in a social system at the same time. Instead, they tend to adopt an innovation in a time categorization, and can be classified into adopter categories based upon how long it takes them to begin using the new idea. In this study, adopters of BB are more likely to be attributed to researchers, who have been influenced or could be influenced to promote the concept in the research community.

Adoption of a new idea is caused by human communication through interpersonal networks. If the initial adopter of an innovation discusses it with two members of a given social system, and these two become adopters who pass the innovation along to other two peers, and so on, the subsequent distribution follows a binomial expansion as in Figure 1 (Rogers, 1971). The criterion for adopter categorization is innovativeness. This is defined as the degree to which an individual is relatively early in adopting a new idea than other member of a social system. In Figure 1, the adopter model categorization has five categories: innovators, early adopters, early majority, late majority and laggards. Innovators are the first 2.5 percent of a group to adopt a new idea, e.g. The Beyond Budgeting Round Table in the case of BB concept could be attributed to this group as classified in the model. They are the ones who initiate an innovation. The next 13.5 percent to adopt an innovation are categorized as early adopters. For example, in the case of the BB concept, company like Svenska Handelsbanken could be likened to the early adopters. They take risk to experiment new ideas considered as innovation. The next 34 percent of the adopters are called the early majority. In the case of the BB concept, the researchers who have empirically and theoretically established the concept after the innovators and the early adopters may be proper to be attributed to this group. These groups of researchers or organizations are opinion leaders who lead, promote and sell an innovation, e.g., the BB concept to potential adopters.

The 34 percent of the group to the right of the mean are the late majority who adopt an innovation having observed that it was a success, and the last 16 percent who embraced an innovation very late are considered laggards. These groups of people are difficult to be convinced because they are always suspicious of an innovation (Rogers, 1971). From this knowledge, Rogers' (1971) adopter's categorization can help to establish a process of how research studies have been used to promote the BB idea and the level of its adoption in the research community.

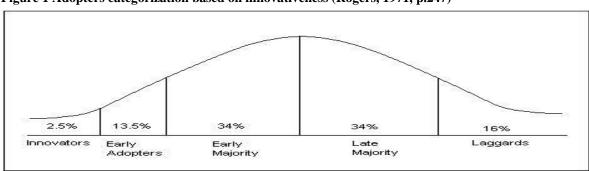


Figure 1 Adopters categorization based on innovativeness (Rogers, 1971, p.247)

Rogers (2003) in addition identifies the following characteristics of any innovation: perceived relative advantage, compatibility, complexity, trialability, and observability. Copeland and Shank (1971) contend that these characteristics can also be used in the analysis of the adoption of changes in accounting methods. Relative advantage is the apparent superiority of an idea to the one it replaces (Copeland & Shank, 1971). For example, some researchers claim that the adoption decision of any management accounting system is to a reasonable degree based on the evaluation of its costs and benefits (King, Clarkson, & Wallace, 2010). Copeland and Shank (1971) believe that one can view compatibility, complexity, trialability and observability together as a subset of relative advantage when advantage is interpreted holistically. Compatibility is the extent to which an innovation is consistent with the existing values and past experience of the potential adopters. Compatible innovations are more readily adopted than incompatible ones. For instance, in adopting BB idea, a certain amount of uncertainty may or may not be associated with changing from traditional budgeting methods.

From the above, complexity is the degree to which an innovation is comparatively difficult to understand and used as presumed by its potential user (Copeland & Shank,1971). On this claim, Walley, Blenkinsop, and Duberley (1994) assert that managers might oppose accounting change because of its apparent complexity. On trialability, Copeland and Shank

(1971) posit that it is the degree to which an innovation may be tried on a limited basis. According to them, accounting innovations are frequently quite trailable. In this sense, one could raise question on whether the BB initiative has been experimented well enough by the potential adopters (e.g., the status of the BB concept associated with research setting dimension in the current study). After a successful experimentation, an innovation is expected to diffuse. To diffuse an innovation, Copeland and Shank (1971) noted the observability perspective. Accordingly, observability is the extent to which an innovation can be simply explained to others. They suggest that management accounting innovations can be communicated, for example, through articles and business school courses. In the current study, for example, published articles on BB studies is a kind of analytical dimension associated with the observability perspective of any innovation as noted by Copeland and Shank (1971).

From the foregoing, ANT can also be regarded as a channel of observability and be used to diffuse an innovation. ANT describes the DOI through a process called "translation" (Callon, 1986; Latour, 1987). This process studies the innovation within the framework in which it develops. The process of translating an innovation indicates that interactions are created between actors who make agreements to pursue certain goals in the change process (Chua, 1995). Therefore, in all diffusion processes, the internal and external networks through which potential adopters learn about innovations that are appropriate for their organization's requirements is very crucial (Clegg, Hardy, & Nord, 1996). For instance, Alcouffe, Berland and Levant (2008) in their study used ANT to discuss how communications between actors can lead to success or failure of management accounting innovations diffusion. The authors position that "accounting innovations diffuse because they translate the changing and transitory interests of various groups of actors who are looking to maintain their position and influence within organizations and society" (p. 2). In the current study, it seems ANT is suitable as a theoretical framework within the accounting area where academic researchers may influence the opinion of other researchers. For instance, how some researchers who have earlier conducted researches have influenced other researchers to learn about the BB initiatives as management accounting tool.

According to Latour (1996), ANT uses rhetorical elements to construct managerial innovations. Rhetorical elements represent the assumed benefits of a management accounting innovation. They are used to convince an audience about the value of an innovation (Nørreklit, 2003). Ax and Bjørnenak (2011) note that rhetorical elements are used to form the

beliefs about a management accounting innovation. Rhetoric can emphasize various aspects of an innovation, for example, benefits (often compared to existing techniques). Relating this to Copeland and Shank (1971), it can emphasize areas of use, problems it can solve, and stories about companies that successfully use the innovation. For example, how Swedish bank Svenska Handelsbanken have successfully used the BB concept (Francke in Daum, 2003). In this regard, Rüling (2005, p. 179) posit that rhetoric characteristically consists of "an ensemble of assumptions and claims about the functioning of organizations, the economy and society that are related to a set of precise suggestions and rules about how to manage organizations'. Similarly, Hope et al. (2011) rhetorically encouraged organisations to adopt BB as a management control tool to replace traditional budgeting. Built on these perspectives, ANT and the DOI theory would be used to support the analysis of the review results for studies on BB from 1999 to 2017 to determine its status in the research community.

CHAPTER THREE METHODOLOGY

3.1 Research design

The research design used for this study is descriptive based on literature review of studies on BB. Webster and Watson (2002) and Onwuegbuzie, Leech and Collins (2012) believe that literature review signifies the most important approach of the research process in qualitative, quantitative and mixed scientific studies. They argue that literature review is the cornerstone and motivation for significant and useful articles. Also, an articulated literature review allows for information gathering from many sources and surveys existing knowledge on a topic. It investigates what has been done and what needs to be done and gives room for the relationships between theories, concepts and practice. It considers the main research methodologies that have been employed and considers strengths and weaknesses of the various research approaches that have been previously conducted (Onwuegbuzie, Leech & Collins, 2012).

This study adopts literature review to critically scan through studies on Beyond Budgeting and identify potential trends. Literature review as a survey investigates the past and present literature on a topic or area of interest. It involves a more holistic scan of the literature on the topic, where the researcher can establish the current knowledge base and research procedures which have been applied to study the topic (Bak, 2003). First, this study seeks to understand in what ways has research communities responded to the BB concept. Second, whether there are findings indicating that BB approach truly improve on management control systems. Third, to determine whether there are findings indicating how the research communities have viewed the diffusion and adoption of the BB idea.

3.2 Search strategies

To conduct a good literature review, information must be sought to give realistic appraisal (Taylor & Procter, 2007). Searching for useful and relevant literature is an important aspect of a research but it also has some challenges. First, it is time consuming. Second, to determine a relevant literature is not an easy task since one must read and scan through many sources. To accomplish the selection of the articles used for this research, some electronic databases and journals were properly searched with relevant information as presented below.

3.2.1 Electronic database

To conduct this research, three major electronic databases were searched. These databases include EBCOhost with Econlit, Web of Science and Scopus. EBSCO provides a variety of library database services in academic, medical, K-12, public library, law, corporate, and government markets. Its products include EBSCONET, a complete e-resource management system, and EBSCOhost, which supplies a fee-based online research service with 375 fulltext databases, a collection of 600,000-plus eBooks, subject indexes, point-of-care medical references, and a collection of historical digital archives. Scopus is the largest abstract and citation database of nearly 22,000 titles from over 5,000 publishers, of which 20,000 are peerreviewed literature: scientific journals, books and conference proceedings. It delivers a comprehensive overview of the world's research output in the fields of science, technology, medicine, social sciences, and arts and humanities, Scopus features smart tools to track, analyses and visualize research. It is owned by Elsevier and is available online by subscription. Web of Science, previously known as Web of Knowledge is an online subscription-based scientific citation indexing service originally produced by the Institute for Scientific Information (ISI), now maintained by Clarivate Analytics, previously the Intellectual Property and Science business of Thomson Reuters that provides a comprehensive citation search. It gives access to multiple databases that reference crossdisciplinary research, which allows for in-depth exploration of specialized sub-fields within an academic or scientific.

3.2.2 Journals

The following American and European journals have been selected for the review of the study: Accounting, Organizations and Society(AOS), The Accounting Review (AAA), Contemporary Accounting Research (CAR), Journal of Accounting and Economics (JAE); Journal of Accounting Research(JAR); and Journal of Management Accounting Research(JMAR), Accounting, Auditing and Accountability Journal(AAAJ), Critical perspectives on accounting(CPA), Financial accountability and management(FAM), Journal of accounting literature(JAL), Management accounting research(MAR), Scandinavian Journal of Management(SJM), The European accounting review(EAR).

3.2.3 Inclusion and exclusion criteria

The criteria for deciding whether to include certain articles was primarily their relevance to the research questions and the purpose of this study. Also, the inclusion of articles was based on whether the articles were peer reviewed and published in some recognized journals. The reviewed articles for this study were both empirical and theoretical papers and writings from 1999 to 2017 encompassing publications across countries. Papers written in English language only with the content of traditional budgeting and BB as major focus were included. To find relevant scientific articles and writings for this study, the inclusion criterion is limited to the date given above based on Wallander's (1999) study, "Budgeting – an unnecessary evil." This is because the study established that he managed Handelsbanken without Budgets, which essentially popularize the BB advocates to promote the concept (i.e., Hope & Fraser, 2003).

3.2.4 Keywords, hits and search process

To conduct a comprehensive search to obtain relevant articles required for the study, different keywords were used to find relevant papers in the three major databases as well as American and European Journals. The databases and the journals were accessed via the University of Agder online library to gain institutional access. The search took place on the databases and both on the American and the European Journals on the 20th and 21st of February 20th of March and 7th of April 2017. The summary of the keywords used for search on the databases and the journals are presented in Table 1, 2 and 3 respectively. To systematically obtain useful articles for the research, search combinations were applied in the order and exactly the way they were presented in the Tables. Quotation marks were applied for the word search to obtain exact word phrase required for the content of the research objective. Advanced search engine was used and specific date of publication between 1999 and 2017 was applied. To save time and avoid unnecessary and cumbersome search to obtain relevant papers, the search combination was used with quotation marks during the process. To avoid irrelevant papers, the search was further filtered using "title", "keywords" and "abstract" during search. To further conform the search to the inclusion and exclusion criterion for the paper selection, the search was filtered using publication in English and content relevance. The search process seems to return few hits but better close relevance to the research objectives.

To ensure a thorough search, the journals were systematically double searched in the following databases: ProQuest, Scopus, ScienceDirect, EBSCO business source complete and

Willey. For a comprehensive search, several options like search with "All text", "Tittle" were also applied to check for meaningful and possible hits. Also, where search combination like "Critique of Budgeting" yielded no result, the search was tried with the inclusion of search combination "management control" and "Beyond Budgeting" to check for possible hits.

Table 1 Summary of search combinations and number of hits in the selected databases

SEARCH COMBINATION	EBSCO + econlit	SCOPUS	WEB OF KNOWLEDGE	TOTAL
"Beyond Budgeting"	24	19	11	54
"Beyond Budgeting"" and "Performance"	18	9	7	34
"Beyond Budgeting" vs "Traditional Budgeting"	1	0	0	1
"Beyond Budgeting" and "Traditional Budgeting"	6	5	0	11
"Critique of Budgeting"	0	0	0	0
Total	49	33	18	100
Duplicates	21	14	7	42
Total relevant papers in each database	28	19	11	58
Total relevant papers after automatic and manual duplicates				28

Summary: Automatic Duplicate search = (13). Manual duplicate search = (7). Total paper is now 38. 10 papers are not relevant. i.e. (38 - 10). Total relevant papers = **28.**

Table 2 Search combinations and number of hits in the selected American Journals

SEARCH COMBINATION	AOS	AAA	CAR	JAE	JAR	JMAR
"Beyond Budgeting"	0	0	0	0	0	0
"Beyond Budgeting" and	0	0	0	0	0	0
"performance"						
"Beyond Budgeting" vs	0	0	0	0	0	0
"Traditional Budgeting"						
"Beyond Budgeting and	0	0	0	0	0	0
"Traditional Budgeting"						
"Critique of Budgeting"	0	0	0	0	0	0
Total relevant papers = 0	0	0	0	0	0	0

Table 3 Search combinations and number of hits in the selected European and American Journals

SEARCH COMBINATION	AAAJ	СРА	FAM	JAL	MAR	SJM	EAR
"Beyond Budgeting"	0	0	0	0	2	0	3
"Beyond Budgeting" and "Performance"	0	0	0	0	0	0	1
"Beyond Budgeting" vs "Traditional Budgeting"	0	0	0	0	0	0	0
"Beyond Budgeting" and "Traditional Budgeting"	0	0	0	0	0	0	0
"Critique of Budgeting"	0	0	0	0	0	0	0
Total relevant papers = 6	0	0	0	0	2	0	4

From the search results, it was obvious as presented in the Tables that the search yielded few results. While scanning through the databases and journals, few articles from search results seems to be relevant for the study, an indication that much research have not been done in this area or at least not published in peer review journals. The articles that are not relevant for the study have mentioned the keywords of the study without being relevant to the purpose of the study. Many of the articles, including the few ones from the journals, showed up repeatedly in most of the databases during search. To handle the repetition and make sure that no two papers are included, Endnote was employed for the search. At first,

100 papers were identified with 43 duplicates from the three databases and the total paper obtained was left with 58. The 6 papers obtained from the journal search were all found in the databases and therefore the journal search did not add any new relevant paper. By grouping all papers in one folder, Endnote was used to detect automatic duplicate search and detected 13 duplicates. After a careful scan, the duplicates were further screened manually and detected 7 duplicates and the total papers without duplicates became 38.

With thorough and careful perusals within the context of the research objective of this study, the remaining 38 articles were screened to obtain 28 relevant papers because 10 papers were deemed irrelevant and were removed to meet validity and reliability of this research. This is because they referenced BB but did not concretely conclude on it as findings. Also, because some of the papers found were not written in English per se except for the summary, which does not necessarily make them meet the English criteria in this study. Finally, to ascertain that the inclusion criterion for this review is met, the findings or conclusions on the criticism of Traditional budgeting and development of BB in these papers were examined. After a rational data reduction process that determined 28 relevant papers, a manual search of 6 new unduplicated studies were identified and obtained from the internet. The total number of articles were read carefully and the procedure ended with 34 selected articles, published between 1999 and 2017.

CHAPTER FOUR REVIEW AND ANALYTICAL DIMENSION

4.1 Introductory remarks

The classification of the analytical dimension in this study is inspired by earlier research studies in management accounting (e.g., Shields, 1997; Scapens & Bromwich, 2001; Zawawi, & Hoque, 2010). Therefore, this study reviewed the articles found on BB from the following dimensions: (1) year and number of published articles (2) types of journals (3) geography/region of publication (4) research design (5) setting and (6) main findings/conclusion. The next section explains the analytical procedure and the reasons for analysing the dimensions.

4.2 Dimensions outline and analytical procedures

To investigate the status of BB from 1999 to 2017, a review approach was applied to determine the rate at which BB concept has been embraced from the inception, i.e. from when Wallander (1999) popularized the concept. The following dimension classification were outlined for the analysis of the investigation.

Published articles. The number of articles published each year and in total was reviewed to evaluate the status of the BB concept as a management accounting innovation.

Publishing journals. The type of journals (especially within the traditional management accounting) was examined to determine the popularity of BB in the accounting field. This is to ascertain whether the criticism channelled toward traditional budgeting is taken seriously or not and whether there are dominating publishing journals on BB studies over the period.

Geographical classification. To investigate whether BB as a concept is widely acknowledged and embraced world-wide, the study reviewed the geographical/region where papers on BB have been published. This is to uncover its status in terms of universality and its practice response as an accounting tool. In relation to where the research papers were carried out (country of study) and where the papers were published (publication place); this dimension was reviewed to ascertain the relevance of BB and its significant contribution to academic studies.

Research design. The study reviewed the research design (qualitative and quantitative) used for analysis in the selected papers on BB to establish how it has affected the diffusion and

adoption of the BB idea. The review helped to show and determine whether the research approaches has hampered or enhanced the adoption rate of BB in the research communities.

Research setting. This study only focused the review of the study settings on empirical studies to ascertain whether BB as a concept has truly diffused and been adopted in most organisations or not. This dimension was determined to establish whether practical information required of the BB idea is adequate and has helped its diffusion.

Main findings/conclusions. The main findings of the selected papers were reviewed to check whether there is consistency in what researchers know about BB and what Hope and Fraser (1999) advocated. Also, this dimension aimed at identifying the extent to which the BB concept has received responses from research communities. It was further established to compare researchers' view of BB idea with the critiques of traditional budgeting whether it is overwhelmingly a better accounting tool or not and whether BB has improved on MCS. Also, to determine how research communities observed the diffusion and adoption of the BB concept.

After reviewing studies on BB, frequency distribution statistics such as simple frequency table and percentages was used to present review results for each of the dimensions. Subsequently, Actor Network Theory and the diffusion of innovation theory were used to support the analysis of the results as applicable in each dimension.

CHAPTER FIVE REVIEW RESULTS AND ANALYSIS

This section presents the review results of 34 articles on BB from the studies reviewed as tabulated in appendix B. Following the presentation, the results were specifically analysed by looking at (1) number of published articles (2) publishing journals (3) geographical classification of journals (4) research design (5) research settings and (6) main findings of the papers. Section 5.1 presents the review results while section 5.2 presents the detail analysis of the results.

5.1 REVIEW RESULTS

5.1.1 Published articles

Table 4 Distribution of number of articles published

Year of publication	Empirical	mpirical Theoretical	
1999	0	0	0
2000	0	0	0
2001	1	0	1
2002	0	ő	0
2003	1	5	6
2004	0	1	1
2005	1	1	2
2006	0	1	1
2007	0	3	3
2008	0	0	0
2009	0	1	1
2010	1	2	3
2011	2	2 2	4
2012	1	3	4
2013	2	0	2
2014	1	2	3
2015	0	1	1
2016	2	0	2
2017	0	0	0
Total 19	12	22	34

Table 4 presents the frequency distribution of published articles on BB. The year of publication was used to analyse the rate at which these articles have been published yearly between 1999 to 2017. This described the ways in which the research communities, (most especially academic communities) have responded to the BB concept. Between 1999 and 2017, empirical and theoretical articles on BB have been published in 14 out of almost 20 years of its innovation. According to the current study, the first article on BB was empirically

published in 2001 (i.e., Hope & Fraser, 2001) while in 1999, 2000, 2002, 2008 and 2017 articles were not published. The distribution show that 6 articles were published in 2003. 2011 and 2012 has 4 publications each, 2007, 2010 and 2014 has 3 publications each, 2005, 2013 and 2016 has 2 publications each while 2001, 2004, 2009 and 2015 has 1 publication each. The graph of the distribution in Figure 2 below suggests that the BB concept did not receive much attention at the beginning of its introduction as management accounting innovation until 2003 when 6 articles were published. This is an indication that response to BB as an accounting innovation reasonably received sizable attention in 2003. From the distribution table and Figure 2, the response of the academic community to the BB idea went down again between 2004 and 2009 and rose moderately in 2011and 2012. After 2012, the response to the BB idea once again went down such that in 2017, there was no published article at the time of this study.

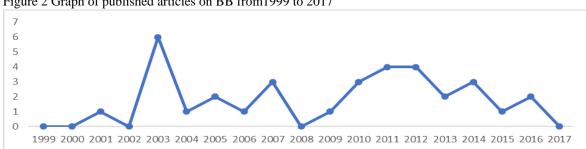


Figure 2 Graph of published articles on BB from 1999 to 2017

5.1.2 Publishing journals

Table 5 displays the distribution of the journals that have published articles on the BB concept. The number of articles published in each journal are as distributed against the journals. From the distribution, a total number of 27 journals have only published 34 articles in almost 20 years of the trend identified with BB concept. European Accounting Review published 3 articles, Management Accounting Research, Journal of Accounting & Organizational Change, Measuring Business Excellence, Qualitative Research in Accounting & management and Polish Journal of Management studies have published 2 articles each while the rest of the 21 journals including Business and Management Journals have published 1 article each.

Table 5 Distribution of publishing journals

Journal name	Frequency
Management Accounting Research	2
Manufacturing Engineer	1
Practical Application of Science	1
Lund University Sweden	1
Journal of Accounting & Organizational Change	2
Measuring Business Excellence	2
Brazilian Business Review	1
Journal of Social Sciences	1
European Accounting Review	3
Qualitative Research in Accounting & management	2
Procedia Economics and Finance	1
Consortium of Advanced Management International	1
Harvard Business Review	1
California Management Review	1
Issues in Accounting Education	1
Journal of Performance Management	1
SSRN Electronic Journal	1
Koncepcja Beyond Kudgeting I Wielopłaszczyznowa Krytyka	
Tradycyjnego Budżetowania	1
Polish Journal of Management studies	2
Journal of Corporate Accounting & Finance	1
Annals of the University of Oradea, Economic Science Series	1
Investment Management and Financial Innovations	1
Baltic Journal of Management	1
Bütçeleme Yaklaşimlarinin Bir Değerlendirmesi: Geleneksel Bütçeleme,	
Daha Iyi Bütçeleme Ve Bütçeleme Ötesi	1
Imoniu Biudžetu Sistemos Formavimas: Svarba, Problemos Ir ju	
Sprendimo Budai	1
Corporate Ownership and Control	1
Journal of Management Accounting Research	1
Total 27	34

5.1.3 Geographical classification of publication

Table 6 Distribution of geographical areas where publishing take place

Geography	Frequency
North America (Including 2 empirical studies)	10
South America	1
South Asia	1
Europe (Including 10 empirical studies)	22
Total 4	34

Table 6 shows the distribution of the geographical areas where the publishing of articles on BB have taken place. By distribution, 10 articles on BB have been published in North America and 2 empirical studies are included in the 10 publications. 1 article has been

published in South America, 1 in South Asia and 22 in Europe. Out of the 22 publications in Europe, 10 are empirical studies. Referring to the full version of Table 6 in appendix C, studies on BB have taken place as follows: 5 studies in England (with 2 empirical papers), 3 in the United States (with 1 empirical paper), 2 studies each in Norway (the 2 papers are empirical), Canada (1 paper is empirical), Romania, Netherland (1 paper is empirical), Finland (the 2 papers are empirical) and Denmark (the 2 papers are empirical). The rest of the countries like Germany, Brazil, United Kingdom, Sweden, Poland, New Zealand (these papers are empirical), Ukraine, Turkey and Lithuania have conducted 1 study each on BB concept. According to the geographical classification of publication in this study, articles on BB have not been published in Russia, Australia and Africa. Going by countries where research studies have practically taken place, England, Norway, Finland and Denmark seem to have taken the lead. The United States, Canada and New Zealand are the next with 1 empirical study each. On publications of BB in general, European countries have demonstrated their interest in the study of BB with 22 publications at large. Next to Europe, North America has 10 published articles on BB. South America and South Asia with 1 publication each and has contributed minimally to the publications on BB with respect to the current research. With this result, one could say that the BB concept to a certain degree has diffused to Europe, North America, South America and South Asia.

5.1.4 Research design

Table 7 Distribution of research design

Research design	Frequency
Qualitative & empirical	10
Quantitative & empirical	2
Qualitative & Theoretical	22
Total 3	34

Table 8 Classification of theoretical studies

Theoretical studies	Frequency
Academic discussion (support view of BB)	9
Academic discussion (against view of BB)	2
Academic discussion (subjective view of BB)	11
Total 3	22

Table 7 presents the research design used for the 34 articles that were reviewed in this study. The research designs are mainly classified into qualitative and quantitative studies. To

adequately present this dimension, they are further classified into three categories based on whether the studies are empirical or theoretical. These three classifications and the number of articles found with them are qualitative with empirical approach, e.g., Bourmistrov & Kaarbøe (2013) (10), quantitative with empirical approach, e.g., Sandalgaard (2012) (2) and qualitative with theoretical approach, e.g., Uyar (2009) (22). In Table 8, the distribution of theoretical studies was further classified as support view, against view and subjective view of BB and Traditional Budgeting. The theoretically discussed papers accounted for 64.7 percent of the total studies found with the research community. The researchers, who discussed to support the view that BB is a better MA tool for MCS are identified with 9 studies (e.g., Bunce, 2003; Goode & Malik, 2011; Player, 2007). Those who discussed to contradict this view are identified with 2 studies (e.g., CardoS, 2014; Heupel & Schmitz, 2015) and those who discussed subjectively on BB and Traditional Budgeting without a definite support emphasis are identified with 11 studies (e.g., de Waal, 2005; Hansen, 2011; Nwagbara, U. (2012). This distribution indicates that research communities have majorly been theoretically discussing the BB idea compared to empirical approach. This could be because of the newness of the innovation and lack of motivation to conduct field research studies.

5.1.5 Research setting

Table 9 Distribution of research settings

Setting	Frequency	
Empirical Studies Multinational Companies Manufacturing companies Service Companies	3 7 2	
Total 3	12	

Table 9 offers the frequency distribution of the research settings obtained in the reviewed articles. In Table 9, results show that 12 studies have been conducted empirically, which accounted for 35.3 percent of the total studies. To further classify the research settings, Table 9 indicates that the empirical studies were conducted in the following settings. In the distribution, 3 studies were conducted in multinational companies, 7 studies in manufacturing companies and 2 studies in service companies and 22 studies, which have no setting are not reported. For simplicity, these settings: multinational companies, manufacturing companies and service companies would be referred to as companies in this study. Empirical evidences from company setting indicate that: First, 6 studies affirm BB as a better MA tool for MCS (e.g., O'Grady & Akroyd, 2016; Østergren & Stensaker, 2011; Max, 2005). Second, 2 studies

confirm that the use of Traditional Budgeting still dominate in companies as a tool for MCS (e.g., Libby& Lindsay, 2010; Sandalgaard, 2012). Third, 3 studies claimed that the adoption of the BB concept depends on type of organization and organizational culture (e.g., de Waal et al., 2011; Sandalgaard & Bukh, 2014).

5.1.6 Main findings/conclusions from the reviewed papers

Table 10 Summary of conclusions on main findings

Empirical papers	Frequency	%	Theoretical papers	Frequency	%
Empirical studies	12	35.3	Theoretical discussion	22	64.7
Qualitative method	10	29.4	Support view	9	23.5
Quantitative methed	2	5.9	Against view	2	5.9
			Subjective view	11	32.4
Total papers	12		Total papers	22	

Based on results obtained on the research design and setting in the above, Table 10 holistically summarised Tables 7, 8 and 9 to show how the main findings/conclusions of the reviewed papers have been classified. Mainly, the findings of researchers on BB were classified into two major response groups, namely: (1) empirical studies and (2) theoretical discussion. These two response groups were further classified into sub-headings. Empirical studies were classified into (1) qualitative studies and (2) quantitative studies. The theoretical discussion group was sub-divided into (1) support view (2) against view and (3) subjective view. The empirical studies, which accounted for 35.3 percent of the articles from the research community presents experiential knowledge of the BB concept that was gained in some companies. Based on this study, the qualitative and quantitative empirical research studies accounted for 29.4 and 5.9 percent respectively from the entire research community. The theoretical discussion group on the other hand presents conclusions based on theories and not on empirical evidence. This research community accounted for 64.7 percent of the total numbers of articles reviewed. In a consecutive order, the support view, against view and the subjective view groups accounted for 23.5, 5.9 and 32.4 percent of the total population of the research community on BB. Subsequently, this dimension was further investigated using a structured research questions as indicated in section 1.2. Based on the research questions, the following results are presented as follows.

RQ1- In what ways has research communities responded to the BB concept? According to this study, the responses of researchers to the BB concept are both empirically and theoretically viewed. Derived from Table 4, Figure 3 shows the graph, which compares how researchers have empirically and theoretically responded to BB from 1999 to 2017.

6
5
4
3
2
1
1
999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017

Empirical Theoretical

Figure 3 Yearly comparison of published empirical and theoretical papers on BB

From the graph, it is obvious that responses from the research community have completely been dominated by theoretical studies from 2002 till 2012. However, the research community have only improved on their response empirically in 2013 and 2016. From the empirical perspective in Table 10, researchers' responses dominated with qualitative studies and with only 2 quantitative studies as presented above. The researchers who responded to the concept with qualitative studies have concluded as follows. Accordingly, 6 empirical studies with qualitative approach, which appears to be categorical in their conclusion believe that BB is a better MA tool for MCS over Traditional budgeting (e.g., O'Grady & Akroyd, 2016; Østergren & Stensaker, 2011; Henttu-Aho, 2016). For example, Henttu-Aho (2016) empirically conclude that the growing internal and global transparency of new budgetary practices such as Beyond Budgeting allowed management to develop new competences. However, from the indefinite point of view, 4 studies conclude that the adoption of BB is subject to the type of organization and the organizational culture (e.g., de Waal et al., 2011; Sandalgaard & Bukh, 2014). These researchers could not categorically support or go against the BB concept in comparison with Traditional Budgeting but think that its adoption is subjective to organizations or the potential adopters. From the quantitative perspective of the empirical response to BB, 2 researchers are identified with a clear-cut conclusion (e.g., Libby& Lindsay, 2010; Sandalgaard, 2012). They both found that Traditional Budgeting is still commonly used in companies as a tool for MCS. For example, Sandalgaard (2012) in contrast to the BB concept, suggest that instead of abandoning the budget, companies could continue to use budgets and enhance it with rolling forecasts to improve static budgets.

From the perspective of the theoretical discussion, the first category of researchers, the support group, 9 researchers discussed to support the view that the BB concept is a better MA tool for MCS than Traditional Budgeting (e.g., Bunce, 2003; Yakhou & Sulzen, 2010; Player (2007). Player (2007) view that the BB concept in the contemporary environment is a better tool over the traditional budgeting and has better capacity to transform performance potential of the MCS, especially in the North American companies. In the against group, 2 researchers discussed theoretically that Traditional Budgeting is a better MA tool for MCS than the BB concept (e.g., Cardos, 2014; Heupel & Schmitz, 2015). For example, Heupel and Schmitz (2015) view that BB is not attractive to organizations because they are not ready to stretch themselves yet. From the third group of researchers who theoretically discussed the BB concept, 11 studies based their conclusion on subjective discussion. Their view is neither supportive nor against both the BB concept and the Traditional Budgeting (e.g., de Waal, 2005; Messner & Schäffer, 2010; Lindsay & Libby, 2007). For instance, de Waal (2005) believe that Beyond Budgeting Entry Scan (BBES) is required of an organisation who is preparing to discuss whether to change, abandon or leave the budgeting process the way it is. The implication is that BBES provides a company an indication of whether there is dissatisfaction with the Traditional Budgeting. Also, whether people in the organisation are prepared to change and adapt it, and how much effort this will take.

RQ2- Are there findings indicating that BB improved on MCS? According to the review, result show that studies empirically and theoretically responded that BB approach improve on organizations' MCS. On this view, 5 studies (e.g., Max, 2005; Østergren & Stensaker, 2011; Henttu-Aho, 2016; O'Grady & Akroyd, 2016) empirically show that BB approach improve on organizations MCS. For instance, O'Grady and Akroyd (2016) conclude that BB can be used to achieve a high level of MCS by developing appropriate cultural and administrative control systems that are internally consistent with their planning, cybernetic and reward systems. Also, 6 studies theoretically responded that BB improve on organizations' MCS (e.g., Bunce,2003; Yakhou & Sulzen, 2010; Hansen, 2011; Norkowski, 2012). From this perspective, for example, Yakhou and Sulzen (2010) note that quality of accuracy in MCS is found with implementing BB.

RQ3- Are there findings indicating how research communities viewed the diffusion and adoption of BB? On the diffusion and adoption of the BB concept, result indicate that researchers have responded both empirically and theoretically. From the empirical

perspective, 4 researchers (e.g., de Waal, 2005; de Waal et al.,2011; O'Grady & Akroyd ,2016) are clearly identified with the view that the BB concept has diffused and been adopted in some organizations. Also, 8 studies responded theoretically that the BB approach has diffused and been adopted to a certain degree (e.g., Hope & Fraser, 2003; Frezatti, 2004; Lindsay & Libby, 2007; Goode & Malik, 2011; Heupel & Schmitz, 2015). From a theoretical perspective, Messner and Schäffer (2010) found that BB is not well diffused but has the potential to improve organizations' MCS. They posit that it provides a convincing and perceptive analysis detailing the weaknesses of budgeting and put forward stimulating ideas for how to improve it. Messner and Schäffer (2010) toed the same line with Réka, Ştefan and Daniel (2014) that the BB idea is at the early stage of its diffusion and therefore, it is an accounting tool for the future. According to their studies, they propose that organizations' experiences will provide more insight to the practices of the BB model.

In a theoretically discussed paper, Goode and Malik (2011) claim that most organizations that have established themselves with traditional budgeting practices may not easily adopt BB based on compatibility and complexity problem. Therefore, BB has been adopted mostly in the modern organizations because these class of organizations are more favourable with its principles (Goode Malik, 2011). In an earlier study, de Waal (2005) empirically conclude that the adoption of BB as a MA tool requires careful processes. To support this view, Vaznoniene and Stončiuviene (2012) and Heupel and Schmitz (2015) in their studies theoretically argue that the BB principles are difficult and has slowed down its diffusion. On this notion, O'Grady and Akroyd (2016), confirm in an empirical study that organizations need to learn more to be able to adopt the innovation.

5.2 ANALYSIS

5.2.1 Published articles

Based on Rogers' (1971) point of view on the criterion for adopter's categorization, the current study attributed the researchers who have published articles on BB as innovators, early adopters and the early majority. This categorization was based on the year of publications and the limited number of studies on the BB concept. This study considers that the BB approach is still at the early stage and therefore, it has not gone beyond the stage of the early majority in the Rogers' (1971) adopters' categorization. Researchers have been publishing both empirical and theoretical articles on the BB concept as indicated in the result in section 5.1. However, not every researcher may agree to the concept but some of them who

think that the BB idea is a better management control tool are perceived to be part of the adopters. Based on Rogers (1971) adopters' categorization, authors like Hope & Fraser (2001, 2003) are considered as the innovators. They introduce the BB idea to potential adopters, so that it can be considered as a useful MA innovation. In the perspective of the early adopters, published articles by researchers like (Neely et al., 2003; Hansen et al., 2003), who empirically and theoretically studied the BB concept and identify with it can be regarded as early majority in the research community. Neely et al. (2003) experimented the BB concept in a field study while Hansen et al. (2003) theoretically discussed the concept to support Hope and Fraser's initiatives. Although, it is expected that an innovation would first be discussed theoretically before empirical investigation, but as shown in Figure 3, the reverse is the case. However, it seems theoretical discussions have been used more than empirical studies to diffuse the BB concept. Because of this, it has dominated the diffusion process of the concept in the research community.

Beyond the innovators and the early adopters, other researchers who have published articles both empirically and theoretically to support the BB approach can be regarded as late majority in the research community (e.g., Østergren & Stensaker, 2011; Norkowski, 2012; Sandalgaard & Bukh, 2014). In relation to Rogers (1971) theory of diffusion of innovation and the review result in section 5.1.6 in the current study, these groups of researchers represent opinion leaders. They promote and sell the BB idea to other potential adopters through articles. For example, studies like (Østergren & Stensaker, 2011; Sandalgaard & Bukh, 2014) have influenced Hentu-Aho (2016) to support the BB approach. Also, published articles on BB represents Copeland and Shank's (1971) observability perspective. Copeland and Shank (1971) believe that accounting innovations can be communicated through articles and business school courses. In this perspective, the published articles on BB have been used to a certain extent to diffuse the idea from one setting to another and from time to time, e.g. from 1999 to 2017, early adopters of BB have empirically studied the concept and influenced the early majority who theoretically adopt the concept. In the same vein, the published articles on BB has also fulfilled the ANT as a channel of observability. For example, the management accounting researchers who try to communicate the BB idea through published articles have established a network linking them to other potential adopters in company settings. For example, Lindsay and Libby (2007) discussed the success story of Handelsbanken with Nancy Cartwright in a large Canadian financial services corporation on how BB works. This research has the capacity to influence other potential adopters in company setting.

From the review results in section 5.1.1, if just 1 or 2 articles on BB are published in a year among accounting journals as indicated in this study, it appears as if the BB concept have not yet received much research attention. Also, one could assume from the distribution that 34 publications on BB is very small compared to what is expected to be published in almost 20 years of its innovation. For instance, a literature study by Hoque (2014), which was carried out on Balanced Scorecard(BSC) show that a total of 181 articles have been published between 1992 to 2011. This is a trend, which can be compared with the 20 years of the BB innovation. In a generalized view, comparing published articles on BSC and BB based on 20 years of their introduction as MA innovations, one may consider that the rate at which research community responded to BB through published articles is slow. It means that in 20 years of comparison, BSC has diffused more than BB. To support this view, these researchers for example, (Barnabe & Busco, 2012; Kraus & Lind, 2010; Malina, Norreklit, & Selto, 2007) confirm that in its 20 years of existence, the BSC has attracted massive interest in the research communities.

5.2.2 Publishing journals

In line with the findings on the number of yearly published articles on BB as distributed in Table 4, it is obvious that journals have not been publishing many articles on BB. Although, 27 publishing journals is apparently not so few to publish articles on BB but the number of published articles on BB by each journal seem to be so few. In a study conducted by Hoque (2014) on BSC, a total number of 181 articles was published by 71 journals within a period of 20 years. This imply that on average, each article on BSC was published at the rate of 2.6 (181: 71) publications by each publishing journal. However, going by the same computation for the 34 articles reviewed in this study, each article on BB have been published at the rate of 1.3 (34:27) publications by each publishing journal. Comparing BSC with BB, one can conclude from the computation that journals have been publishing studies on BSC two times the rate at which BB is being published. Also, this computation could guide a conclusion that research community have responded to BSC two times more than BB. This is an indication that in 20 years of existence of both BSC and BB as accounting innovations, BSC has diffused more than BB in terms of both published articles and publishing journals. Given that European Accounting Review has 3 published articles as the highest publishing journal on BB but there is no significant difference between this frequency and the least publishing journals with 1 publication (8.82% to 2.94 %). Consequently, there is no obvious dominating publishing journal on BB as in the case of BSC in Hoque (2014, p.40), where Harvard

Business Review Journal dominated by 40.2% to 0% in a distribution that was attributed to business and management journals.

If in almost 20 years of the BB innovation, the publishing journals have only published articles the way it has been distributed in Table 5, there are three possible perspectives to develop an explanation on this result. First, it could mean that management accounting researchers have not seen any need to shift away from the use of Traditional Budgeting and did not bother to research into the BB concept. This study considers that organizations may not be adopting the BB idea well enough through experimentation to convince and attract researchers to study its presumed superior advantage. Consequently, Copeland and Shank's (1971) trialability notion, i.e. the degree to which an innovation may be tried suggests that the BB idea may have been inadequately experimented. This may have hindered the observable perspective of the BB idea and thereby resulted in few publications. In general, this result may have been obtained because the BB concept is a bit new to the research communities. Second, from Shield's (1997) point of view, it could mean that proper research studies have not been conducted and as such, journals have not been accepting them for publications. For instance, due to lack of required knowledge, convincing field studies on MA processes of manufacturing companies with empirical evidence on BB may be published in limited number. Third, relative to Shield (1997) notion, it could mean that a thorough collaborative field research works on BB have been difficult due to lack of team works from research communities. Should this be the case, it would be difficult to have enough publications on the BB concept. On the overall and based on the distribution in Table 5, one could infer that BB have not received much attention from research communities and have not diffused so well.

5.2.3 Geographical classification of publication

From the review results and the full version of Table 6 in the appendix, studies on BB have taken place in 24 countries that can be grouped into 4 geographical areas. From this categorization, it is obvious that Europe has the highest diffusion rate based on the number of publications recorded. The implication is that 64.7 percent [22 of 34 publications] of the diffusion of BB took place in Europe. It means that research communities in Europe have shown higher interest to the innovation compared to research communities in any part of the world. Also, based on the number of empirical studies found with publications in Europe, one could imagine that the level of experiential knowledge on the BB concept in Europe's research community is higher than that of other research communities in other part of the

world. Following this computation, research communities in North America is next in their response to the BB concept. The diffusion rate [10 of 34 publications] is 29.4 percent. Also, based on the number of empirical studies found in the publications in North America, one could agree that the level of knowledge insight into the BB concept in North America is next compared to Europe research community. South America and South Asian research communities least responded to the innovation with 2.9 percent each [1 of 34 publications]. Also, their responses are only based of theoretical discussions, which may not adequately help to establish full knowledge on the BB concept. Going by Global diffusion rate of the BB concept and based on this study and the provision of worldometers account in 2017 that there are 195 countries in the world; one could deduce that BB as a concept from 1999 till the time of this study has only diffused globally by 11.3 percent. According to Rogers (1971) and in Figure 1, the 11.3 percent diffusion indicator implies that the innovation (the BB concept) still lies with the 'early adopters'. It means BB is still at the early stage of its diffusion and has passed the stage of the innovators like Hope and Fraser and the Beyond Budget Round Table (BBRT).

The BB idea has been developed as an accounting innovation for almost twenty years and in line with the current study, it has not diffused to Russia, Australia and Africa. According to Copeland and Shank (1971), the compatibility of an innovation is the extent to which an innovation is consistent with the existing values and past experience of the potential adopters. Compatible innovations are more suitable for adoption than incompatible ones. On this view, it seems that the failure of the diffusion and adoption of the BB idea in the three continents may be due to its non- alignment with the existing values in most organizations. These organizations may have doubt about the principles that guide the BB idea as against their management philosophy. Hence, the organizations may decide not to experiment the idea for adoption because they may believe that the idea is too dificult to understand. With this development, the situation becomes a continous impeeding factor against good field research on BB in these continents. Consequently, this may have also accounted for the few publications and publishing journals on BB as distributed in section 5.1 and 5.2. Taking a cue from Shield'(1997) perspective, journals may not have been publishing studies on BB in these continents because researchers in those communities lacked the motivations to do so. Another reason could be that journals may have refused to publish papers that appears substandard to their preferences. Also, in this study, the published articles found on BB may have been limited to the number recorded in this study because of language of study. Most especially, studies conducted outside of English language may still be found in some journals. For instance, in places like South Asia, South America and some countries in Europe, journals may have published aricles on BB in other languages (e.g. Kowalewski, 2014; 2015).

5.2.4 Research design

Qualitative with empirical approach. Interview and case study are some of the examples of field study or empirical research approach by which researchers try to investigate a phenomenon. Researchers conduct studies by going out to sample opinion from small communities of professionals, organizations or a setting to establish or confirm a theory. In the current study, 29.4 percent is attributed to this category. According to the result in this study, the attributed percentage to this approach supports the call for more field study or empirical research as emphasized by Shield (1997). Shield noted that there are at least five reasons why field study research was few in his study. They include: (1) lack of knowledge about how to do good studies. (2) Lack of colleagues with which to team. (3) Lack of incentives (annual performance reviews, short times for tenure and promotions). (4) Lack of access to good sites. (5) Journals' editorial styles and preferences which may include a reluctance to publish papers whose topics, theories or research methods are beyond those that they currently publish (Shield, 1997, p.10). Similarly, the few qualitative and empirical studies (i.e., 29.4 percent) obtained in the current study on BB can also be explained with the five reasons noted by Shield but not in total agreement as enumerated in the foregoing. Also, the newness of the BB concept could be one of the reasons why few qualitative and empirical research were obtained.

Going by Shields' (1997) notion, the few studies obtained on BB by qualitative and empirical approach could mean that scholars' field research knowledge on the BB idea have not been good enough for publication. This could be linked to the journals' editorial styles and preferences emphasized by Shield in his study. As much as the current study would agree with this claim, one could also argue that the reluctance to publish studies on BB is due to lack of expertise than the fact that topics, theories or research methods are beyond papers currently being publish on BB. The implication is that it would be reasonable to say that researching beyond what is current is innovative. Built on Shield's observation, it is reasonable to say that conducting an advanced empirical research through field studies is not entirely simple. For example, a researcher who is willing to research the BB concept using case study or interview method may need research partners and funding to make it work as

easy as possible. A difficult attempt to secure suitable and willing partners may have been discouraging research efforts. This could have contributed to the few qualitative and empirical research studies on BB as reported in this study. Also, companies must be willing to experiment a new accounting idea for researchers to arrive at a definite conclusion on whether the new idea is better or not. Therefore, the company's disincentive to experiment the BB idea most especially in places like Australia, Russia and Africa as reported in this study may have also accounted for the few qualitative and empirical studies found on BB.

From Shield's (1997) incentive perspective, this study view that the reason for obtaining few qualitative and empirical research (e.g., by case study and interview) on the BB idea could have been because of organizations' reluctance or disincentive to experiment their MA processes (e.g. trying BB as an alternative to traditional budgeting to benchmark performance). Organizations lacked these incentives because it is time consuming, difficult and expensive. For example, Vaznoniene and Stončiuviene (2012) posits that some organizations could not adopt the BB concept because it is too demanding. This explains Copeland and Shank's (1971) trialability and complexity view of an innovation. It therefore means that the demanding view effect of the BB application is a disincentive for the potential experimenting companies, which consequently will deny research communities to have access to practical information. Also, it is rational to think that the limited number of studies found with qualitative and empirical research design as presented in this study is also traceable to lack of access to some good sites where they can be obtained. The decision to consider this also bring about some complications. For example, the process time and expense that would be incurred during search might be a discouraging factor to the research efforts itself. Therefore, the inability to endure the challenges associated with accessing good sites during search are considerable factors strongly deemed to be associated with the fee qualitative and empirical studies obtained for this study.

Quantitative with empirical approach. On the BB concept, the frequency distribution in Table 7 shows that two studies (i.e., Libby & Lindsay, 2010; Sandalgaard, 2012) were quantitatively and empirically researched. These studies accounted for just 5.9 percent of the total studies on BB. The studies quantitatively adopted a survey approach to collect data from companies in Denmark and accounting firms in Canada and United States respectively. Surveys enables researchers to gather data from large samples, describe practice and test hypotheses. This design and method may have been unpopular among the research design obtained in the current review result because it seems it is more technical to use its estimation

techniques to study detailed processes of the MA phenomena. In the paper, it seems the method must have only been used to simply compare and determine organizations that have adopted the BB concept in Denmark, Canada and United states as indicated. For instance, the two studies based on survey have clearly shown that the use of Traditional Budgeting still dominates as MA tool for MCS in organizations. Holding on to this opinion, lack of basic knowledge and expertise on how to use quantitative estimation techniques empirically to study detailed processes of how the BB concept can be adopted and be diffused may have caused the limited number of studies found with this research design. This may have also been triggered by lack of incentives by manufacturing companies to experiment the BB idea where pragmatic information can be used for process management and innovation.

Qualitative with theoretical discussions. As presented in Table 7, 22 out 34 studies on BB are theoretically discussed, which amounted to 64.7 percent of the total studies. The researchers discussed the BB concept with various models which include models for manufacturing companies: influences on a successful manufacturing company and alternative performance management model, model on Rolling Budgets, Activity-Based Budgeting and Beyond Budgeting, theories of beyond budgeting entry scan (BBES) and theories on the concept of the BSC. The 64.7 percent attributed to this classification is more than half of the studies on BB. Going by Shields' (1997) assertion on why field studies were few in his study, focusing on lack of colleagues with which to team and lack of incentives, one can submit that these challenges may have triggered the large number of theoretically discussed studies on BB. Considering that the BB concept is as an innovation at its early stage, it must have also accounted for the larger number of theoretical studies obtained on it. This is based on Milliken (2010), who note that grounded theory is mainly well appropriate for investigating social processes that have attracted little previous research attention. However, from ANT perspective, the theoretical discussions must have been used largely as a rhetoric element to convince potential adopters for the belief about the BB idea as an accounting tool. For instance, Ax and Bjørnenak (2011) toed a convincing path that was established by Hope and Fraser (2003) to emphasize the BB as a management accounting innovation (MAI).

From the foregoing, it is possible to say that the presumed comparative advantage associated with empirical research studies i.e. field studies on BB may not have been adequately gained. For instance, Shield (1997) posit that an associated use of case/field studies would be to provide comprehensive investigation of differences (i.e. empirical research may lead to very different result from what theory originally predicted). Also,

case/field study research helps to describe new or innovative MA ideologies or settings in which they exist that an ex post theory cannot (Shield, 1997). Following these views, one may consider that many MA researchers have not adequately gained adequate empirical knowledge through field research study, which can explain the BB concept. For example, the 35.3 percent attributed to the empirical approach with which some studies on BB have been conducted appear to be too limited. With this result, it may be inadequate at this point to claim that deep knowledge of how the BB idea fit into organizations have been gained, i.e. the knowledge of innovation process management to adapt BB in organizations is not sufficient. It means that Copeland and Shank's (1971) trialability and observability notion of an innovation is yet not well fulfilled for the BB idea. Consequently, this may not have allowed efficient diffusion and adoption knowledge of the BB idea as an innovation.

5.2.5 Research setting

Comparing the ratio between empirical studies and theoretically discussed papers (i.e. 12:22) on BB, one may to say that research communities have not adequately gained experiential knowledge considered to be appropriate for the dynamics of the BB idea. Theoretically discussed papers, being the most frequent research studies might be too theoretical to establish concrete evidence required of the innovation. To experientially investigate if BB as a management control tool has improved on MCS in organizations and whether the BB concept is diffusing or have been well adopted, efforts should be deployed more on empirical studies. According to Copeland and Shank (1971) trialability and observability of an innovation is the degree to which it may be tried. From this view, it seems that empirical research settings such as field study research in companies to establish the trend with the diffusion of the BB idea as presented in the result may be too limited to gain insight into BB concept. Since MA practices are integral to the operations of manufacturing companies, empirical studies in company settings, especially manufacturing companies are expected to have big impact on the understanding of the dynamics of BB.

Within the research community, knowledge transmission by researchers could be attributed to a network facilitated by the early adopters that have decided to research the BB idea. For instance, Goode and Malik (2011) emphasized on Hope and Fraser (2003) to support the view that BB is better than traditional budgeting in the new business environment. Based on the Actor Network Theory, published articles are basically actants. Actant is that which achieves or undertakes an act (Dankert, 2011). In this case, published articles and the participating researchers are actants which represents a network, connecting

other potential adopters to diffuse the concept. This link or connection through published articles could either be empirical research studies or theoretically discussed papers. For example, the articles, which have theoretically discussed the BB approach have the capacity to rhetorically transmit the concept to potential adopters by emphasizing the area it can be used more effectively to solve problems. Relating this understanding to Copeland and Shank's (1971) view, researchers, through academic papers or articles, can theoretically narrate or discuss success stories on the BB idea such as the case of Swedish bank Svenska Handelsbanken without conducting any special field work (e.g., Lindsay & Libby, 2007). According to Dankert (2011), this is because actors have the power called agency to change other actors. Therefore, from the distribution in Table 9, and result in Figure 3, it seems that the theoretically published articles appear to be the easiest and likely the most suitable actant, presumed to quickly facilitate interaction between actants in this early stage of the BB idea. In other words, this interaction is a form of the diffusion process of the BB approach.

5.2.6 Main findings/conclusions

According to the review results, 6 empirical studies had definite support for the BB concept over the Traditional Budgeting. 4 emperical studies conclude that the adoption of the BB approach depends on the individual organizations. This group of researchers are assumed to have a positive view of the BB approach. 2 emperical studies conclude that the Traditional Budgeting is a better accounting tool than the BB approach. Theoretically, 9 researchers concluded that the BB approach is a better accounting tool than Traditional Budgeting. 11 studies generally discussed both the BB concept and Traditional Budgeting while 2 studies conclude that Traditional Budgeting is a better MA tool for MCS. Based on this result, it is resonable to apportion 10 researchers to those who empirically found that the BB concept is sufficiently a good accounting tool for MCS. Therefore, from 12 empirical studies on BB, this study considers that 10 studies are in line with view that the BB approach is a good accounting tool for MCS. However, the 9 studies, which theoretically support this view over 2 studies with opposing view seem to justify the conclussion on the emperical studies.

Linked to the forgoing, 5 empirical studies according to the review result in section 5.1.6 have shown that the BB approach has significantly improved on organizations' MCS. Also, 6 studies have theoretically supported this view. On the diffusion of the BB concept, 4 researchers with empirical studies found that the BB concept has diffused and been adopted in some organizations. Similarly, 8 researchers have supported this view from a theoretical stand point. However, some researchers, e.g., Messner and Schäffer (2010) and Réka et al.

(2014) theoretically posit that the BB idea is not well diffused but has the potential to improve organizations' MCS. To maximise the significance of the main findings, the current study considers that it is more reasonable to draw a conclusion on the status of the BB approach from empirical perspective instead of theoretical point of view. This is because empirical research helps to provide detailed investigation of a phenomenon, which theoretical studies may not be able to provide (Shield, 1997). Therefore, researchers' conclusion on BB will be based on empirical findings compared to theoretical conclusions.

From the preceding, this study considers that 83.3 percent of the empirical research studies (i.e., 10 out of 12 researchers) have supported the view that the BB approach is a suitable accounting tool for organizations MCS. Even though the adoption of the BB approach is partly subjective to organizational culture and type of organizations, the follower of the BB idea dominates the researchers, who view that Traditional Budgeting is a better accounting tool. Considering that only 16.7 percent of the studies empirically oppose the BB idea (i.e., 2 out of 12 studies), 50 percent of the studies have categorically supported the BB approach over Traditional Budgeting. This support is consistent with Bogsnes (2009) and Hope et al.'s (2011) view. Based on the findings from empirical studies on BB, this study considers that the BB idea has the potential to diffuse and become a significant MA tool for organizations' MCS in the future. Also, based on findings on empirical studies on BB alone, it is possible to argue that it is inadequate to conclude that the BB approach has a significant diffusion potential attributed to it going by the entire responses from the research community. This is because the empirical research studies on BB have only accounted for 35.3 percent of the entire research community in the current study. It therefore implies that, while theoretical studies are useful to communicate the BB idea to potential adopters, the highly required empirical studies tend to be very few to develop proper understanding on it. In general, as found by Hoque (2014), comparing the number of published articles on BSC with BB, this study suggests that even though the BB idea may attract adopters' interest, it appears that it has not yet received much attention from the research community.

CHAPTER SIX

KNOWLEDGE GAPS, LIMITATIONS OF STUDY, SUGGESTION FOR FUTURE RESEARCH AND CONCLUDING REMARKS

The studies reviewed in this paper have provided useful insights into the BB concept and its status in the research community. Despite the knowledge gained on the concept, there are still some issues, which requires attention. It is noted that "future research should be informed by what has been learned from past research" (Shields & Shields, 1998, p. 65). Based on this, some gaps are identified and emphasised within the knowledge understanding of BB. These gaps are addressed under two sub-topics: (1) Research perception and approach on BB (2) Experimentation and spreadability of BB. Also, some limitations of the research review approach applied was acknowledged. To accomplish these tasks, section 6.1 presents and addresses issues, which are identified as gaps. Section 6.2 presents the limitations of study and section 6.3 presents suggestions for further research studies. Subsequently, the concluding remarks on this study was presented in section 6.4.

6.1 Knowledge gaps

Based on the review and the analysis of the review results on BB in this study, the following gaps are highlighted for possible directions for future studies. First, issues associated with research perception and approach on BB. Second, issues surrounding the experimentation and spreadability of BB. In the following, each paragraph presents identify gaps.

6.1.1 Research perception and approach on BB

This study has shown that the research approach used for studies on BB from its inception till date have been dominated by theoretical studies. Going by the results in section 5.1, 64.7 percent of the studies on the BB concept have been theoretically researched. Also, this study identified that 35.3 percent of the studies on BB have been empirically conducted. Out of this, 29.4 percent was qualitative and 5.9 percent was quantitative research papers. Empirical research helps to provide detailed investigation of a phenomenon (Shield, 1997). From this point of view, it is plausible to conclude that research communities have not gained substantial knowledge of the BB concept. It implies that, the knowledge gained on BB this far may not be adequate to provide optimum understanding and promotion of the concept to the potential adopters.

___ In comparison with other MA innovation like BSC, this study identified that few studies have only been published on BB, especially empirical studies. Considering that this is a

disincentive for potential knowledge on BB, it could have been caused by several reasons. Relating this to Shield's (1997) notion, the inability to publish more articles on BB can be traceable in the first place, to reluctance to publish papers whose topics, theories or research methods are substandard to journals' editorial styles and preferences. For instance, ANT and DOI theory as lightly used in this study are also scarcely used in the studies reviewed. The inability to use these theories to develop proper knowledge on BB may have accounted for few publications on the concept. This view corresponds to the fact that there could be lack of knowledge about how to do good studies (Shield, 1997) on BB.

Going by the studies reviewed in this paper, findings have shown that the BB concept is not as popular in comparison to other management accounting tools like (e.g., Budget, BSC). Traceable to this, it is arguable that few research studies found on BB could possibly be subject to little awareness on BB in business schools and management accounting textbooks (e.g., Merchant &Van der Stede, 2012; Horbgren, Datar & Rajan, 2015) that deals with MCS. In case these arguments hold, this could become a disincentive for awareness on BB, particularly for some students, who seek to learn more about management accounting tools. Given that some students may not have been well informed about BB compared to other accounting tools during studies in school, such students may likely not have developed into researchers, who will be interested to conduct studies on the concept. Also, assumed that such student has become an influential top-level manager in an organization, he or she may not see any need to experiment BB. This is because, the background knowledge, which can inform his or her initiatives may not have been adequately provided in school.

6.1.2 Experimentation and spreadability of BB

Among the studies reviewed in this paper, researchers like Libby and Lindsay (2010) and Sandalgaard (2012) in a quantitative study found that BB is not as commonly used as Traditional Budgeting. Also, Messner and Schäffer (2010) and Réka et al. (2014) from a theoretical point of view think that the BB idea is not well diffused. On this notion, Daniel (2014) believe that the BB idea is at the early stage of its diffusion. Going by these studies, it appears that the BB idea has not received much acceptance. However, it is apparent that there is no finding from studies on BB, which empirically establish that organizations have been experimenting BB and discontinue the concept because it failed to improve on organizations' MCS. Until it can be established that this has been happening to organizations that put BB to test through innovation process management, it may not be proper to have a definite conclusion that the BB idea has not been well adopted.

____ According to this study, it is found that in almost 20 years of BB concept as an accounting innovation, it has only diffused globally at the rate of 11.3 percent. In connection to this result, this study found that BB has not diffused to continents like Russia, Australia and Africa. In another perspective, from 1999 to 2017, studies found on BB for this study is just 34 articles. Also, the publishing journals identified with publications on BB within the Traditional Accounting Journals are very few compared to what is expected. According to this study, Traditional Management Accounting and Management Control Journals accounted for about only 20 percent of the publishing journals on BB.

6.2. Limitations of the study

This study found that in almost 20 years of BB concept as an accounting innovation, it has only diffused globally at the rate of 11.3 percent. In connection to this result, this study found that BB has not diffused to continents like Russia, Australia and Africa. In another perspective, from 1999 to 2017, studies found on BB for this study is just 34 articles. Also, the publishing journals identified with publications on BB within the Traditional Accounting Journals are very few compared to what is expected. According to this study, Traditional Management Accounting and Management Control Journals accounted for about only 20 percent of the publishing journals on BB. Based on the forgoing, the following as highlighted in paragraphs are considered as limitations of the current study:

____ First, that BB has not diffused to continents like Russia, Australia and Africa could have resulted from the inability to access good cites, which can yield useful studies on BB in these research communities. This might have also accounted for the limited results obtained for articles published in the Traditional Management Accounting and Management Control Journals.

____ Second, that BB has only diffused globally at the rate of 11.3 percent is traceable to geographical publications of articles on the concept. Linked to this, language barrier must have limited the articles found on BB in some countries where studies have been conducted other than English Language. This implies that studies on BB conducted in Languages other than English, which is supposed to contribute to its global diffusion process are missing in this study.

____ Third, this study has only considered peered reviewed articles that are published on BB. The knowledge gained on BB is presumed to be limited because the study ignores other papers like PhD thesis, master's thesis, textbooks and other arena where studies on BB can be

accessed. This is a possibility that; in this study, the result obtained on its global diffusion rate is suboptimal.

6.3 Suggestions for future research

Based on the identified and highlighted knowledge gaps and limitations of the current study, the following suggestions are presented for possible direction for future research.

the following suggestions are presented for possible direction for future research.
Based on the results obtained on the research approach used in the studies reviewed on
BB, it suggests that more empirical studies should be conducted for more understanding of
the concept. For example, more field research studies (e.g., interview/case studies and
quantitative survey studies) may be conducted in organizations that will be willing to use MA
information to experiment BB for innovation process management. The incentive to conduct
such empirical studies will help to identify more organizations that are willing to adopt the
BB idea. Subsequently, the process will provide a more robust status on BB and its potential.
This implies that, more of its unidentified relative advantage might be possible to observe, if
it is compatible with the organizations' control system. However, one major challenge, which
could hinder this suggestion is organizations' lack of incentive to experiment (Shield, 1997).
Considering that the theories used in this study have not been fully applied and are
scarcely used in the reviewed papers on BB, further research may be required, using a deep
application of both ANT and DOI theory to investigate the BB concept from different
paradigms. This is because, according to Zawawi and Hoque (2010), supplementing different
theories to conduct research could offer a full understanding of a studied concept. To
accomplish this task, researchers from different accounting field of study, with relevant
knowledge of how to properly apply these theories could team up to conduct research on BB.
To establish that the presumed causalities responsible for lack of popularity of BB in
comparison to other MA tools hold or not, further studies could be conducted. First, by
considering the extent to which BB has been part of management accounting text books used
among 100 most well-known business schools in Europe and North America. Second, one
could go through course description in management accounting textbooks to examine the
content on the BB concept in comparison to other accounting tools.
On the limitations of study, first, literature study, which considers papers that are beyond
published peered reviewed articles published in English Language may be conducted on BB.

For instance, the study could consider PhD thesis, master's thesis, reports and textbooks and another arena where the concept has been studied and discussed.

____ Second, researchers, who are willing to explore more on the status of BB are encouraged to invest more resources in terms of time and finance to be able to access good sites during search. This is expected to enable them to obtain more useful studies on BB other than obtained in this paper.

Third, it would be more holistic to conduct a research that include studies on BB in different languages. This type of study would account for studies on BB which are not conducted in English language. For example, some researchers in South America, Asia and parts of Europe may have conducted useful and reviewable studies on BB in their languages (e.g., Kowalewski, 2014; 2015). Because this type of research may be difficult to conduct, it is possible to suggest that researchers with like minds from different countries could team up to carry out the study. As Shield (1997) comment, one of the challenges that may confront this suggestion would be lack of colleagues with which to team. This is because, considering the resources required (e.g., finance, connection time with colleagues, translation efforts), they may lack the incentive to do so.

6.4 Concluding remarks

Stimulated by Scapens and Bromwich (2001) and built on ANT and DOI theory, this study is conducted as a review of literature study on BB. The purpose has been to investigate the status of the research discourse on BB to unveil some gaps and put forward possible concepts for future research studies. This study reviewed 34 published peered reviewed articles on BB for a period of almost 20 years of its existence as a MA tool. The review offers an imprint of how BB has diffused and been adopted in the research communities. Analysing the concept in terms of geography, research approach, yearly published articles, publishing journals and the views of researchers in their studies, it is apparent that the diffusion of BB is in its early stage.

This study identifies that compared to other accounting tool like BSC, published articles on BB in its almost 20 years of existence is very few. Also, publishing journals that have published these articles, which are traceable to the Traditional Management Accounting and Management Control Journals are just about 20 percent. It implies that very few articles on BB have only been published by the Traditional Management Accounting and Management Control Journals. Furthermore, this study found that the BB has not diffused to

continents like Russia, Australia and Africa. With the level of diffusion identified in this study, it appears that the concept has only diffused globally at the rate of 11.3 percent. Investigation within the context of this study show that the BB idea has diffused more in Europe where research communities in England, Norway, Finland and Denmark have taken the lead. Research communities in North America is next in the diffusion and adoption of BB, while research communities in South America and South Asia have contributed minimally to the diffusion process.

It appears in almost 20 years of BB as a MA tool; 34 articles have been published. Out of these publications, 22 studies have been conducted theoretically while 12 have been empirically researched. To reach an objective conclusion on this study, the review only focused on empirical studies on BB. This was based on Shield (1997), who note that empirical research can help to investigate an innovation better than theory can do. Following this notion, 10 empirical studies identifies that the BB approach is a good accounting tool for MCS while 2 studies outrightly disagree with this view. These 2 studies are quantitative research papers, which may not have a generalizable conclusion for this type of investigation. In general, theoretical studies have dominated responses from the research communities with about 64.7 percent of the total reponses. This study shows that on BB, response from theoretical perspective was dominant from 2002 till 2012. Between 2013 and 2016, responses have been apparently equal from both empirical and theoretical approach to studies on the concept in the research communities. In general, there seems to be an overweight of positive attitude towards BB in the research community (i.e., 83.3% support view), but there is little research, which could be identified to have proffered the best solution to all issues yet.

This study identifies some limitations, which appears to have potential constraints on the reliability and validity of the knowledge gained on the status of BB. Among other limitations, this study presumed that if more resources such as time, finance and extra efforts are deployed to search some sites that were not included during search in this study, there is the possibility that more useful studies on BB may have been obtained for this review. Also, including BB studies published only in English is a limitation to this study. Beyond these limitations, this study identifies that studies on BB have not addressed some issues. From the knowledge of the review, it was evident that there are no studies on BB indicating that organizations are experimenting with BB and discontinue the concept during innovation process management. Also, from among other issues, this review identifies that no studies on BB have supplimentarily and broadly used ANT and DOI theory to examine the concept of

BB. Nevertheless, this study considers that the limitations of the review approach in this paper and the unadressed issues in the studies reviewed on BB are knowledge gaps which must be filled. Subsequently, this study provides possible approach with which the gaps could be filled by the research communities.

To fill these gaps, this study mentions various suggestions. Given there is an incentive to experiment the BB idea in organizations, research communities are encouraged to conduct empirical studies in willing organizations, especially with interview/case studies to truly investigate how BB has diffused and been adopted. This is expected to help to determine the relative advantage of the concept in terms of complexity, compatibility, trialability, and observability (see Rogers, 2003). Assume there is availability of required resources, researchers have also been encouraged to team up to conduct a comprehensive and similar research on BB. Comprehensive in the sense that it would consider studies conducted in different languages other than English language. Also, this study conceived that because the BB idea is not popular enough, there is a disincentive for awareness on BB, particularly for accounting graduates who tend to become researchers. This study based on this, perceived that further studies could be conducted by considering the extent to which BB has been part of management accounting text books used for teaching in some business schools. This is considered an approach that may help to increase its awareness and diffusion potential in the research communities.

In conclusion, this study is presumed to enhance the understanding of the research status on BB by reviewing studies on the concept in the period between 1999 and 2017. The review is limited to peered reviewed published articles on BB in English language, which has yielded few numbers of papers. This implies that caution must be applied because the findings in this study may not be generalizable on the BB status holistically. However, this study has presented useful suggestions to be considered for further enquiry.

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APPENDICES

A: Principles of the BBM, adapted from Hope and Frazer (2001, p.13)

	Management Principles
1	Beat the competition
2	Reward team-based competitive success
3	Make strategy a continuous and inclusive process
4	Draw resources when needed
5	Coordinate cross-company interactions through "market-line" forces
6	Provide fast, open information for multi-level control
	Leadership Principles
7	Create a performance climate based on sustained competitive success
8	Create a performance climate based on sustained competitive success Build the commitment of teams to a common purpose, clear values, and shared rewards
8	Build the commitment of teams to a common purpose, clear values, and shared rewards
8	Build the commitment of teams to a common purpose, clear values, and shared rewards Devolve strategy to front line teams and provide the freedom and capability to act

B: Review of studies on BB

Author	Title	Year	Source/Journal	Setting	Country of	Nation of	Design	Findings/Conclusion
Author	Title	1 cai	Source/Journal	Setting	study	empery	Design	Findings/Conclusion
Bourmistrov, A., & Kaaltoe, K.	From comfort to stretch zones: A field study of two multinational companies applying "beyond budgeting" ideas	2013	Management Accounting Research	The study empirically focused on OilCo and TelCo company to investigate how change in the design principles of management control systems (MCSs) based on implementing the beyond budgeting (BB) ideas has influenced the transition of decision-makers from "comfort" to "stretch" zones and how this transition changed the supply of and demand for managerial information.	Norway	United States	Qualitative research design is used for the study and Multiple case study approach using interview as main data collection was used to carry out the research.	The authors note that the Beyond Budgeting practices help design a new type of Management Control System and information supply with the aim of moving decision-makers into the "stretch" zone. The study show that it is important that top managers in organizations can recognize and evaluate the limits of their MCS. Organizations that experiment with their MCS have been charged to be prepared to discover that abandoning budgets and introducing a new MCS should never be a "destination", but rather as a "journey".
Bunce, P.	BLOW THE BUDGET!	2003	Manufacturing Engineer	No setting	United Kingdom	England	The research design is qualitative and theoretical models on manufacturing companies were used as the main methods of analysis	The traditional budgeting is coherent and all its principles and practices assumes central control which will not allow foreign elements like balanced score cards, decentralization, but Beyond Budgeting is the final and most important factor in enabling the lean, adaptive and ethical manufacturing enterprise to

								reach its full potential.
Cardos, I. R.	NEW TRENDS IN BUDGETING	2014	Practical Application of Science	No setting	Romania	Romania	The research design is qualitative and the main method of analysis is theoretic.	The author view that the findings of budgeting studies are contradictory because there are some differences in budgeting systems due to specific business environments and inevitable influences of national and organizational cultures. From findings, the author note that companies do not plan to move away from traditional budgeting methods. They prefer modifying it and adapting to the managerial needs with the possible use of new techniques and alternatives. Despite criticism of the budget, the author considers that alternative budgeting methods such as BB are not a standardized solution for budgeting problems for every organization. The author believes they are a set of practices used by advanced companies that managed to successfully deal with certain shortcomings of traditional budgeting.
Cieslak, K., & Kalling, T.	Reasons behind contemporary use of budgets.	2007	Lund University, Sweden	No setting	Sweden	Sweden	Qualitative research design was used for the study with theories as the	Based on the findings of Hope and Fraser (2003), the authors view that the assumptions about the roles budget play in modern

Hermkens- Janssen, M., & van de Ven, A.	The evolutionary Adoption framework: explaining the budgeting paradox. Title	2011 Year	Journal of Accounting & Organizational Change,	The study in four multinationals In Netherland empirically investigates with a model called the evolutionary adoption framework (EAF), which looks at four aspects that play a role in the process of accepting a management control practice by organisational members, in the sense that they are going to use the adjusted practice. These are activities in the adoption process, motives of the persons involved, constraints that may influence the activities, and order and interaction of activities. Setting	Netherland Country of study	England Nation of empery	analysis. The study is qualitatively designed with case studies and the main method of data collection and analysis is interview.	questioned. They think that more research is needed on how BB can be accepted as a better tool since it ignores the use of Budget. The authors reveal that efficiency motives have driven the changes to the budgeting process at some of the studied organizations. Accordingly, these organizations were willing to make changes to their budgeting process to reduce the amount of time and resources needed. In the other way, it is shown in some organizations that the budgeting process has gained widespread acceptance as a means for control and thus making it legitimate not to change it. It therefore means that adopting other MCS such as Beyond Budgeting is relative to companies.
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de Waal, A.	Is your organisation ready for beyond budgeting?	2005	Measuring Business Excellence	No setting	Netherland	England	The research design is qualitative and theories are used to analyse the BB concept	Organisations may turn to beyond-budgeting because it enables an organisation to look with a fresh view at its budgeting process, other planning processes, and organisational structure. Before an organisation starts to implement the beyond-budgeting model, the author advised that the BBES should be filled. This scan provides a company a good indication of whether there is dissatisfaction with the current budgeting process, whether people in the organisation are prepared to change and adapt it, and how much effort this will take. With a filled in BBES, an organisation will be better prepared for the discussion that inevitably lies ahead in the near future: whether to change, abandon or leave the budgeting process the way it is.
Frezatti, F.	Beyond Budgeting: any chance for management improvement?	2004	Brazilian Business Review	No setting	Brazil	Brazil	The study is qualitatively designed. Theory is used as the main method of analysis.	The Beyond budgeting view does not only affect the way of dealing with the budget but the entire planning design, the entiry's business plan and depend on the company's nature and cultural characteristics.
Goode, M., &	Beyond Budgeting:	2011	Journal of Social Sciences	No setting	England	Pakistan	Qualitative research design	Based on Hope and Fraser's view, the authors posit that

					study	empery		
Author	Title	Year	Source/Journal	Setting	Country of	Nation of	Design	Findings/Conclusion
								and non-intuitive optimal outcomes. This complexity suggests that empirical work should create and estimate models which separate individual departments and allows feedback between functions.
C.	Impact of Adopting Rolling Budgets, Activity- Based Budgeting and Beyond Budgeting		Accounting review				qualitative and the method of analysis is theoretic.	rolling budgets and beyond budgeting should generate increased pay-for performance sensitivity as well as increase firm's total expected output. Accordingly, the study models show that each technique generates a set of complex interactions and non-intuitive
Malik, A. Hansen, S. C.	The Way Forward? Pakistan A Theoretical Analysis of the	2011	European Accounting Review	No setting	United states	England	was adopted for the study and theories were used as the main method of analysis. The design for the study is	BB is better than Traditional Budgeting in this new business environment. However, it is unlikely that it will be fully adopted as the BBRT imagined; several principles are extremely useful within the modern environment. BB May be adopted but management will find it hard to completely abandon budgeting, as it is embedded in its business culture. According to the author, interpretation suggests that

Hansen, S. C., Otley, D. T., & Van der Stede, W. A.	Practice developments in budgeting: an overview and research perspective	2003	Journal of management accounting research	No setting	United States	United States	Qualitative research design was used for the study and issues on MCS was theoretically approached as the main analysis.	The authors reveal that both the traditional budgeting and BB has common indicators such as the importance of environmental turbulence as a dominant factor in budget design and that using both tools suggest that budgeting does not operate in isolation of many other organizational practices, and thus, should be studied as part of an organizational package. Also, they emphasized the importance of expanding budgeting research to incorporate the behaviour of middle and lower level managers. In this study, the authors note that activity based Budgeting will completely rebuild traditional budgeting but BB abandons it.
Henttu- Aho, T.	Enabling characteristics of new budgeting practice and the role of controller	2016	Research in Accounting & Management	The study empirically monitored the four enabling characteristics of management control, namely, repair, internal transparency, global transparency and flexibility (Adler and Borys, 1996), related to the new budgeting practices	Finland	England	The research design is qualitative and the main method of analysis is case study based on interviews.	The author demonstrates that the implementation of rolling forecasting was a major attempt at "repair" to remedy the incompleteness of accounting information, which made controllers experts in producing and delivering more realistic forward-looking information in the organization. However, the increasing internal and global

				in one global paper company.				transparency of new budgetary practices (e.g. Beyond Budgeting) enabled controllers at various levels of organization to develop new competences.
Henttu-Aho, T., & Järvinen, J.	A Field Study of the Emerging Practice of Beyond Budgeting in Industrial Companies: An Institutional Perspective.	2013	European Accounting Review	The study embraced a field study of five industrial companies that recently either abandoned their annual budgeting system or radically simplified it.	Finland	England	The research design is qualitative and interview method is the main method of data collection in a field study of five industrial companies in Finland.	According to the authors, an incremental move towards Beyond Budgeting makes various management accounting tools replace the functions that budgeting serves or perform and not budgeting in its totality. However, two approaches emerged from the practice of Beyond Budgeting. First, firms differentiate between target setting and forecasting which appears to be a driver for budget abandonment. Second, target setting and forecasting remain interlinked and many characteristics of traditional annual budgeting remained but in a simplified form.
Heupel, T., & Schmitz, S.	Beyond Budgeting - A High-hanging Fruit. The Impact of Managers' Mindset on the Advantages of Beyond Budgeting.	2015	Procedia Economics and Finance	No setting	Germany	Germany	The research design is qualitative and the method of analysis is theoretic.	The authors note that the ability of managers and employees to adapt this system of coaching and active participation in their daily work and move from comfort to stretch zones, might be the most important impact factor regarding the success of a

Fraser, R.	budgets?	2003	Review	210 Setting	Lugidiu	States	Quantative	beyond budgeting has shifted decision-making from the core to the periphery. These companies trust their managers to claim the resources they need to seize the opportunities they see.
Author Hope, J., &	Title Who needs	Year 2003	Source/Journal Harvard Business	Setting No setting	Country of study England	Nation of empery United	Design Oualitative	Findings/Conclusion Companies that move
Hope, J., & Fraser, R.	Beyond Budgeting questions and answers	2001	Consortium of Advanced Management International (CAM-I), BBRT	The paper empirically used Interview to analyse the concepts and practical implications of beyond budgeting 'conversational' style.	England	England	The research design is qualitative and used interview method as a main approach for the analysis.	Beyond Budgeting approach. The authors further showed that implementing Beyond Budgeting might gain a lot of advantages especially for knowledge based organizations but the system might be difficult to implement as it requires changes in managers and employee's mindset which is difficult to achieve. Based on this, they note that Beyond Budgeting is not attractive to organizations because they are not ready to stretch themselves yet. According to interview, Hope and Fraser conclude that BB lead to better performance and much stronger in those organizations that have changed culture.

Hope, J., & Fraser, R.	New Ways of Setting Rewards: THE BEYOND BUDGETING MODEL	2003	California Management Review	No setting	United States	United States	The research design is qualitative and the method of analysis is theoretic.	According to Hope and Fraser, the best practice revealed that some companies have applied the principles of the Beyond Budgeting model. It was affirmed that other approaches can be adopted depending on the company, strategy, organization level, and prevailing culture. They posit that the ultimate best practices model, particularly in Anglo-Saxon countries with a strong tradition of incentives, should have a percentage of rewards based on the relative success of the company. Hope and Fraser concludes that there is nothing that underestimates the performance management process of beyond budgeting like an unaligned or ill-thought-out package of management rewards.
Libby, T., & Lindsay, R. M.	Beyond budgeting or budgeting reconsidered? A survey of North- American budgeting practice	2010	Management Accounting Research	Accounting Firms in Canada and United States were empirically used as sample for the study	Canada	United States	The study design is quantitative (Web based survey was used as the main method for the	Even though most firms are not willing to abandon Traditional Budgeting, some firms may adopt BB. In most firms surveyed in this study, budgets continue to be used for control purposes and are
							1	
							analysis	perceived to be value-added. While problems exist with budgets, organizations are adapting their use to account for these problems rather than abandoning budgets altogether.
Lindsay, R. M., & Libby, T.	Svenska Handelsbanken: Controlling a Radically Decentralized Organization without Budgets.	2007	Issues in Accounting Education	No setting	Canada	United states	The research is qualitatively designed and used case study with theoretical approach for analysis.	The authors used Handelsbanken case to provide a rich description of the control system that Handelsbanken uses in place of relying on budgets; It correlates with the principles that the Beyond Budgeting movement is advocating. However, The decision point in the case is whether the model of control could be widely adopted outside of Sweden and outside of Handelsbanken.
Author	Title	Year	Source/Journal	Setting	Country of study	Nation of empery	Design	Findings/Conclusion
Max, M.	Beyond Budgeting: Case Studies in North American Financial Services	2005	Journal of Performance Management	The study empirically highlights the experiences of six leading North American-based financial services organizations.	United States	United states	The study design is qualitative. It used highlights of case study as main method of analysis.	The author note that leading organization are adopting Beyond Budgeting, a path which others are encouraged to toe. The affirmation is evidently shown in the research that performance improved in all the organizations studied due to the adoption of BB and controls are stronger compared to traditionally managed banks.

Messner, M., & Schäffer, U.	The evolution of a management accounting idea:	2010	SSRN Electronic Journal	No setting	Germany	United States	Qualitative research design was used for the	The authors indicate that Beyond Budgeting has not well diffused but has
U.	accounting idea: the case of beyond budgeting.						was used for the study and the method of for analysis is theoretic	well diffused but has something to offer. They conclude that it provides a "cogent and insightful analysis documenting the weaknesses of budgeting" (Libby & Lindsay, 2009, p. 12) and puts forward some interesting ideas for how to overcome or alleviate these weaknesses, such as the increased use of rolling forecasts (Morlidge & Player, 2010) or the evaluation of performance relative to peers However, they propose that study of firms'
								experiences will provide more insight.
Neely, A., Bourne, M., & Adams, C.	Better budgeting or beyond budgeting?	2003	Measuring Business Excellence	Company: 15 leading companies were interviewed to gain empirical insight into the best practices organizations are adopting	England	England	The research design is qualitative with interview method approach for analysis.	The authors note that while some organizations have adopted Beyond Budgeting, especially in the Scandinavian countries, a lot is said to be required to completely eradicate budget. A lot of companies have not been able to let go of traditional budgeting due to a large part of the basic traditional process and their attendant cost inefficiencies.
Norkowski, M.	THE BEYOND BUDGETING CONCEPT AND	2012	KONCEPCJA BEYOND BUDGETING I	No setting	Poland	Poland	The research design is qualitative and	The author notes that in a dynamic and turbulent information economy,
						•		
	MULTIFACETED CRITICISM OF TRADITIONAL BUDGETING		WIELOPŁASZCZ YZNOWA KRYTYKA TRADYCYJNEG O BUDŻETOWANI A				theoretical approach was used as the main method of analysis.	companies need to abandon Traditional Budgeting and become adaptive and decentralized according to the Beyond Budgeting's philosophy. Abandoning traditional budgeting unlocks the potential of shareholder value models, benchmarking models, balanced scorecards, activity-based management

	MULTIFACETED CRITICISM OF TRADITIONAL BUDGETING		WIELOPŁASZCZ YZNOWA KRYTYKA TRADYCYJNEG O BUDŻETOWANI A				theoretical approach was used as the main method of analysis.	companies need to abandon Traditional Budgeting and become adaptive and decentralized according to the Beyond Budgeting's philosophy. Abandoning traditional budgeting unlocks the potential of shareholder value models, benchmarking models, balanced scorecards, activity-based management practices, customer relationship management models, information systems and rolling forecasts.
Author	Title	Year	Source/Journal	Setting	Country of	Nation of	Design	Findings/Conclusion
					study	empery		
Nwagbara, U.	Beyond the allure of budgeting: Assessing the suitability of budget for organisational performance in the 21st century	2012	Polish Journal of Management Studies	No setting	England	Poland	Qualitative research design was used for the study and theory was the main method of analysis.	The principle of Beyond Budgeting in relation to the 21st century ideas and approaches in accounting and financial management has seen Traditional Budgeting as a system of the past. However, the author believes that even though this system has its disadvantages, it could still be a meaningful method of managing organisations. The author proposed that the attractions of budgeting need to be surpassed for better managed organisations in the contemporary period.
O'Grady,	The MCS package	2016	Qualitative	The authors	New Zealand	England	The research is	Implication of the

W., & Akroyd, C.	in a non-budgeting organisation: a case study of Mainfreight.		Research in Accounting & Management	empirically carry out an ethnomethodology informed case study on MCS at Mainfreight, a large multinational logistics company headquartered in New Zealand			qualitatively designed and used interview internal company documents, published corporate histories, a company presentation, the corporate Web site and site visits methods to collect data.	Findings/Conclusion show that organisations can operate without traditional budgets (The use of Beyond Budgeting) and still maintain a high level of control by developing appropriate cultural and administrative control systems that are internally consistent with their planning, cybernetic and reward systems. The authors position that more needs to be learnt about how organisations move from a budget based to a beyond budgeting MCS package, and how they balance the influence of controls used in
Østergren, K., & Stensaker, I.	Management Control without Budgets: A Field Study of 'Beyond Budgeting' in Practice.	2011	European Accounting Review	The study empirically examines Beyond Budgeting in practice by focusing on how corporate level in a large multidivisional oil and energy company adopted this new approach to management control and how it was implemented in two business units in Norway. It was focused on the	Norway	England	The research design adopted for the study is qualitative. The main method of analysis is semi-structured interview to collect data on case study on oil company in Norway.	place of budgets. Managers and employees according to the case result agree that Beyond Budgeting is a superior control system but has some challenges such as (1) the ambition problem, (2) the sub-optimization game problem, and (3) the employee exchange problem. The authors believe that the dynamic resource allocation empowers people since the focus is on getting new projects all the time. However, they
				rules of action that are developed in the absence of budgets; and how the new management control system is expected to influence interaction patterns.				contemplate that little is known about how Beyond Budgeting might empower people to creatively secure their own projects.
Author	Title	Year	Source/Journal	Setting	Country of study	Nation of empery	Design	Findings/Conclusion
Player, S.	Why Some Organizations Go "Beyond Budgeting"	2003	Journal of Corporate Accounting & Finance (Wiley),	No setting	United States	United States	The research design is qualitative and the method of analysis is theoretic.	The author concludes that transforming the performance potential of an organization by breaking free from the annual performance trap and

Player, S.	New paths to dramatically improve your planning and control processes	2007	Journal of Corporate Accounting & Finance (Wiley),	No setting	United States	United States	Qualitative research design was used for the study and theory was used for analysis.	Result show that North American companies significantly favour the evolutionary approach to BBRT implementation. They posit that it is a safer way to reach their expected benefits. However, based on Hope and Fraser's view, the authors note that a move to continuous planning and adaptive controls requires enlightened leadership, commitment to change culture and behaviours as well as processes and utilization of fast, open information systems which enables corporate managers to empower the field as they know they have the information needed to run the business.
Réka, C. I., Stefan, P., & Daniel, C. V.	TRADITIONAL BUDGETING VERSUS BEYOND BUDGETING: A LITERATURE REVIEW	2014	Annals of the University of Oradea, Economic Science Series,	No setting	Romania	Romania	The research design is qualitative and the main method of analysis is theoretic.	According to the authors, the alternative budgeting methods gained popularity as they proposed solutions to traditional budgeting's perceived problems. Accordingly, traditional budgeting is frequently inappropriate for the current environment and it is still very popular among organizations and will not soon be eliminated. Every organization sets specific
Author	Title	Vear	Source/Journal	Satting	Country of	Nation of	Dariera	targets and objectives and the management style, culture and attitude towards employees will determine the approach of budgeting within each organization. However, the authors consider that BB requires basic change. Even though it supposes fundamentally transforming a company's management model and needs a decentralised way of managing it is still in early stage. Therefore, it is a model for the future. Findings/Conclusion
Author	11116	Year	Source/Journal	Setting	Country of study	Nation of empery	Design	Findings/Conclusion
Rickards, R. C.	Beyond Budgeting: Boon or boondoggle?	2006	Investment Management and Financial Innovations,	No setting	Ukraine	Ukraine	The research design is qualitative and theoretically discussed two condensed case studies for analysis	The author concludes that while Better Budgeting and Advanced Budgeting do not call an organization's current management model fundamentally into question, Beyond Budgeting does. It means Beyond Budgeting has a better impact on performance than both the Better Budgeting and Advanced Budgeting.
Sandalgaard, N.	Uncertainty and budgets: an empirical investigation	2012	Baltic Journal of Management	The study is based on the use of data from a survey among the largest Danish companies. The data is collection	Denmark	England	The research is quantitatively designed and the method of analysis is logistic regression.	The author concludes that the Beyond Budgeting has not been widely used because traditional annual budgets are still the dominating way of planning and control. It was noted that

				from 608 Danish companies				instead of abandoning the budget, companies could maintain budgets and supplement it with rolling forecasts to deal with the limitations of static budgets.
Sandalgaard, N., & Bukh, P. N.	Beyond budgeting and change: a case study	2014	Journal of Accounting & Organizational Change	A company in agri- food industry as a case study. The name disguised	Denmark	England	Qualitative (Interview approach for data collection)	Result show that Beyond Budgeting is not a standard solution and that Beyond Budgeting is not equally suitable in all kinds of organizations and in all situations. Thus, further research is needed to identify how the Beyond Budgeting package will be organised under different circumstances such that the understanding of how modern organizations design their budgeting systems to fit the business environment they are facing today would be properly understood.
Author	Title	Year	Source/Journal	Setting	Country of study	Nation of empery	Design	Findings/Conclusion
Uyar, A.	AN EVALUATION OF BUDGETING APPROACHES: TRADITIONAL BUDGETING, BETTER BUDGETING, AND BEYOND BUDGETING.	2009	BÜTÇELEME YAKLAŞIMLARI NIN BİR DEĞERLENDİRM ESİ: GELENEKSEL BÜTÇELEME, DAHA İYİ BÜTÇELEME VE BÜTÇELEME VE BÜTÇELEME	No setting	Turkey	France	The study research design is qualitative and the main method of analysis is theoretical.	Result show that there is a divide between the use of traditional budgeting and Beyond Budgeting among the studied organizations. There is no one standard approach to management control system but depend on the individual organization. On this note, the authors conclude that
Vaznoniana	THE	2012	IMONIII	No setting	Lithuania	Lithyonia	Qualitativa	even though the criticism against Traditional budgeting is valid, they are far from universal. According the study, most respondents has affirmed that they cannot manage without budget because they think it cannot be discarded. Instead of adopting BB, they prefer to improve on budget and work it.
Vaznoniene, M., & Stončiuviene , N.	THE FORMATION OF COMPANY BUDGETING SYSTEM: IMPORTANCE, PROBLEMS AND SOLUTIONS.		IMONIU BIUDŽETU SISTEMOS FORMAVIMAS: SVARBA, PROBLEMOS IR JU SPRENDIMO BUDAI.,	No setting	Lithuania	Lithuania	Qualitative and theoretic	From Findings and Conclusion, the authors note that the Beyond Budgeting and Activity Based Budgeting are the two possible ways of solving budgeting problems. Activity based budgeting is linked to strategic management and reflection of operational flexibility in the budgets. Due to its weaknesses and the lots required for transformation management, beyond budgeting pattern was declined.
Yakhou, M., & Sulzen, K.	Changes in budgeting	2010	Corporate Ownership and Control	No setting	United States	Ukraine	The research design is qualitative and used theories as main method of analysis	The author posits that even though it is unclear, Beyond Budgeting is noted as increasing accuracy of budget (and forecasts). They note that while a measure of accuracy is not produced, the quality of accuracy is surely found.

C: Full version of Table 6

Table 6: Distribution of geographical areas where publishing take place							
Country of study/publication place	Geography	Frequency					
Norway/United States	North America	1					
United States/United States	North America	5					
Germany/United States	North America	1					
England/United States	North America	1					
Canada/United States	North America	2					
		10					
Brazil/Brazil	South America	1					
		1					
England/Pakistan	South Asia	1					
		1					
Norway/England	Europe	1					
United Kingdom/England	Europe	1					
Romania/Romania	Europe	2					
Sweden/Sweden	Europe	1					
Netherland/England	Europe	2					
United States/England	Europe	1					
Finland/England	Europe	2					
Germany/Germany	Europe	1					
England/England	Europe	2					
Poland/Poland	Europe	1					
England/Poland	Europe	1					
New Zealand/England	Europe	1					
Ukraine/ Ukraine	Europe	1					
Denmark/England	Europe	2					
Turkey/France	Europe	1					
Lithuania/Lithuania	Europe	1					
United States/Ukraine	Europe	1					
		22					
Total	24	34					